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(54) **TECHNIQUES FOR PRIORITIZING AND HANDLING CONFLICTING READ AND WRITE COMMANDS FOR PASSIVE DEVICES**

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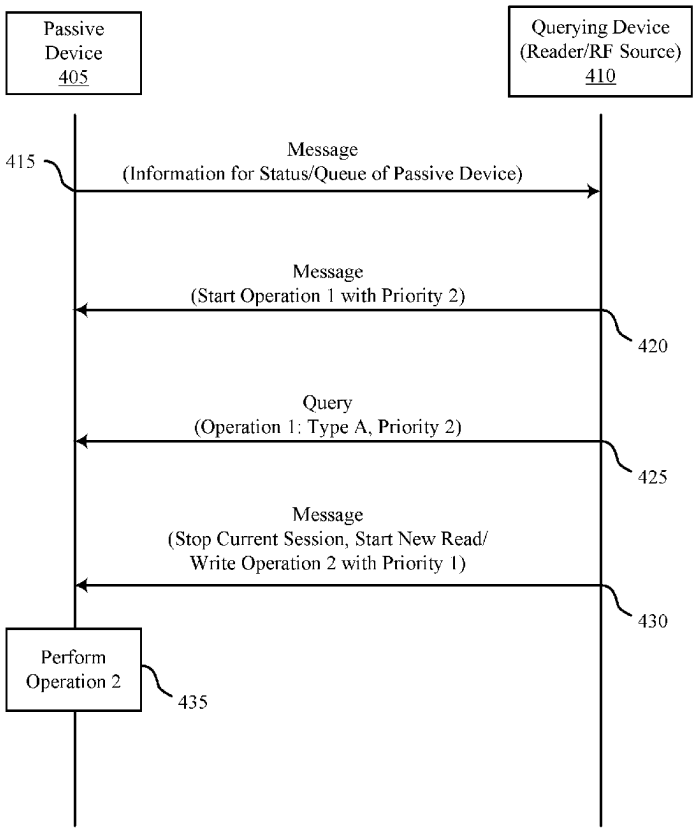
CPC ***H04W 72/569*** (2023.01); ***H04W 72/20*** (2023.01)

(57) **ABSTRACT**

Methods, systems, and devices for wireless communications are described. A passive device (e.g., radio frequency identifier (RFID) tag) may be configured to receive a first query associated with a first operation to be performed at the passive device and a second query associated with a second operation to be performed at the passive device, where the first and second operations are associated with first and second priority levels, respectively. The first operation and the second operation may include write operations, read operations, or both. The passive device may transmit, to a first querying device, a second querying device, or both, a message indicating a status of the first operation, the second operation, or both, and may perform one of the first or second operations in accordance with the first and second priority levels and based on transmitting the message.



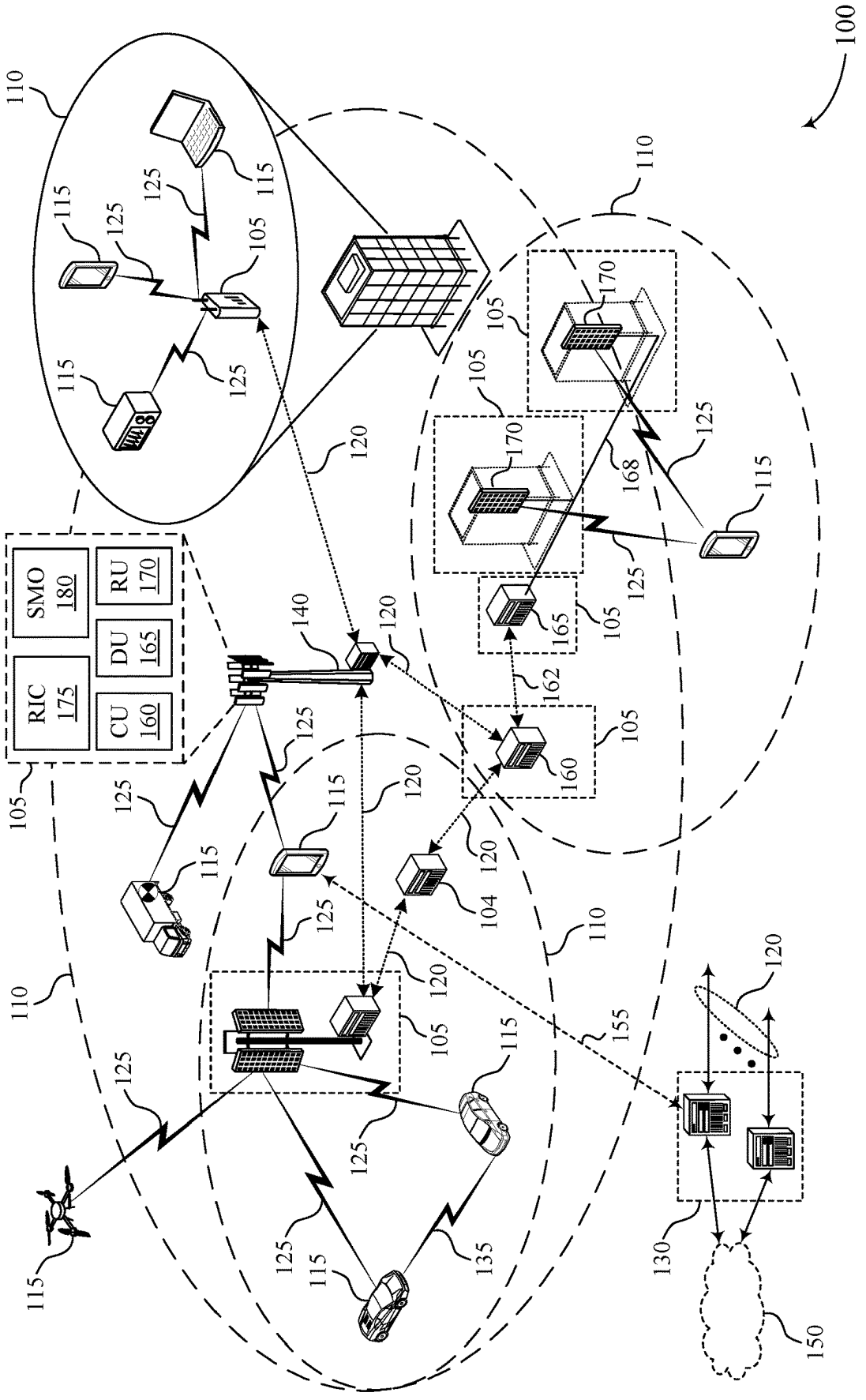
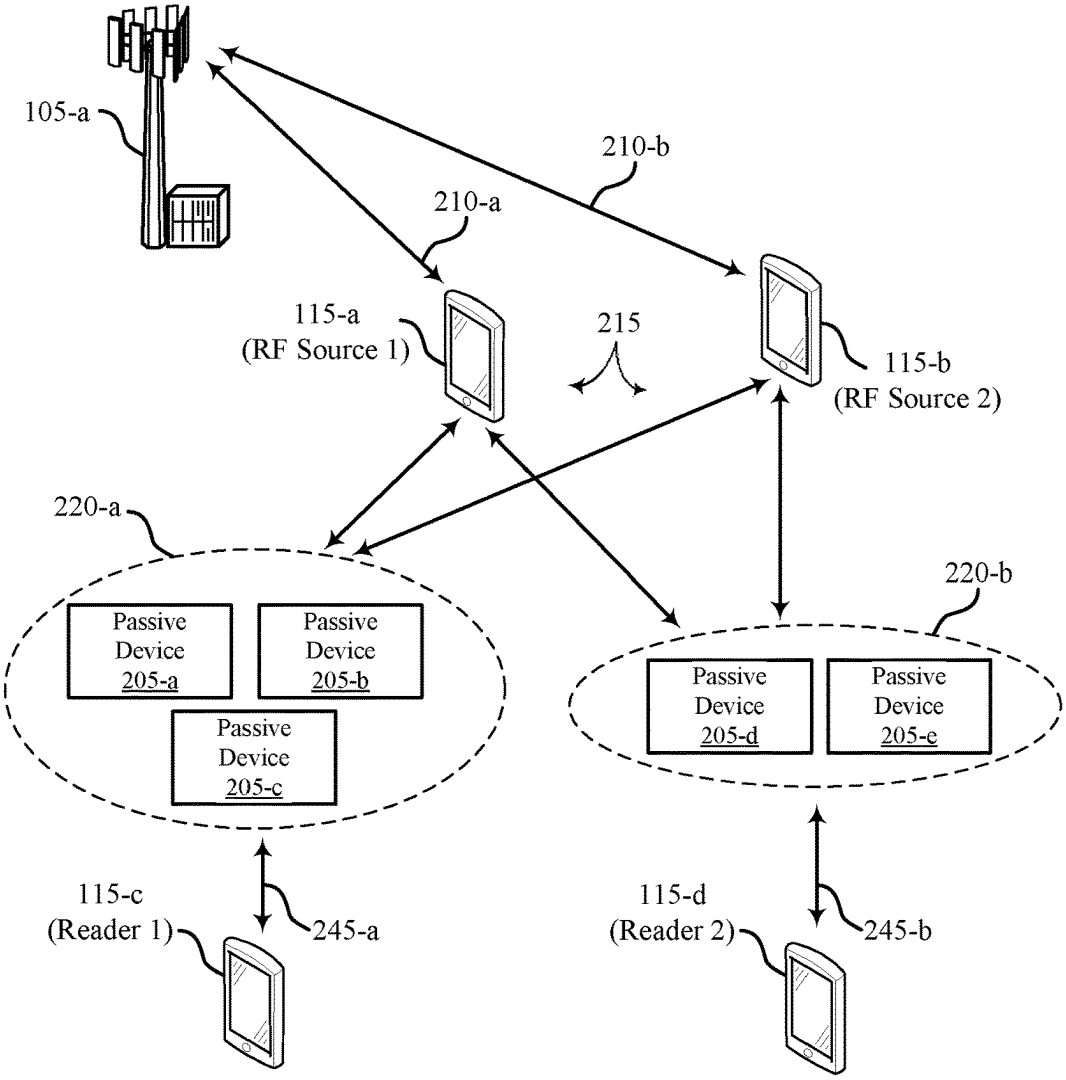
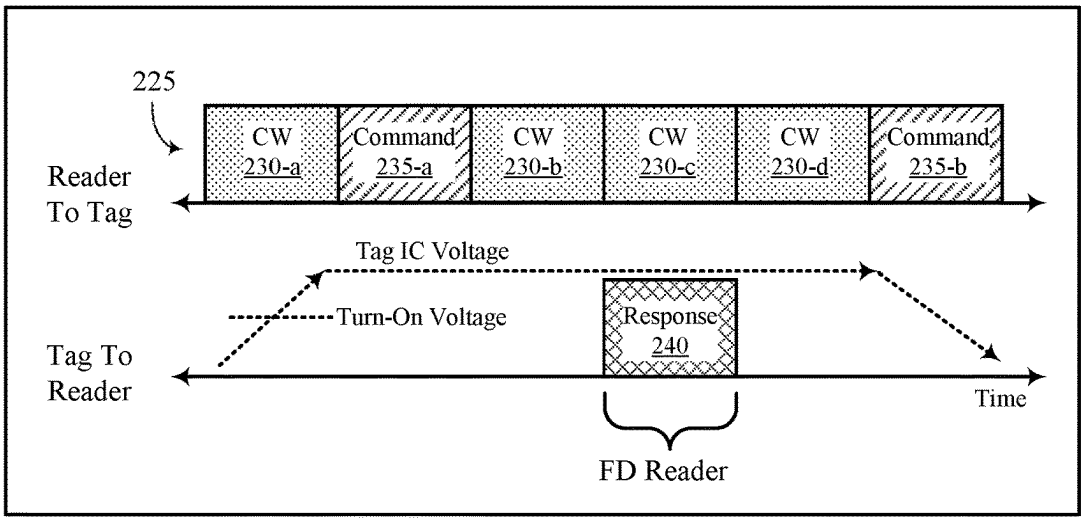

100
110
115
125
105
120
170
168
140
162
160
165
RIC 175
CU 160
DU 165
SMO 180
RU 170
104
155
130
135
150

FIG. 1


105-a
210-b
210-a
115-a
(RF Source 1)
215
115-b
(RF Source 2)
220-a
220-b
Passive Device 205-a
Passive Device 205-b
Passive Device 205-c
Passive Device 205-d
Passive Device 205-e
115-c
(Reader 1)
245-a
115-d
(Reader 2)
245-b


225
CW 230-a
Command 235-a
CW 230-b
CW 230-c
CW 230-d
Command 235-b
Reader To Tag
Tag IC Voltage
Turn-On Voltage
Response 240
Tag To Reader
Time
FD Reader

200

FIG. 2

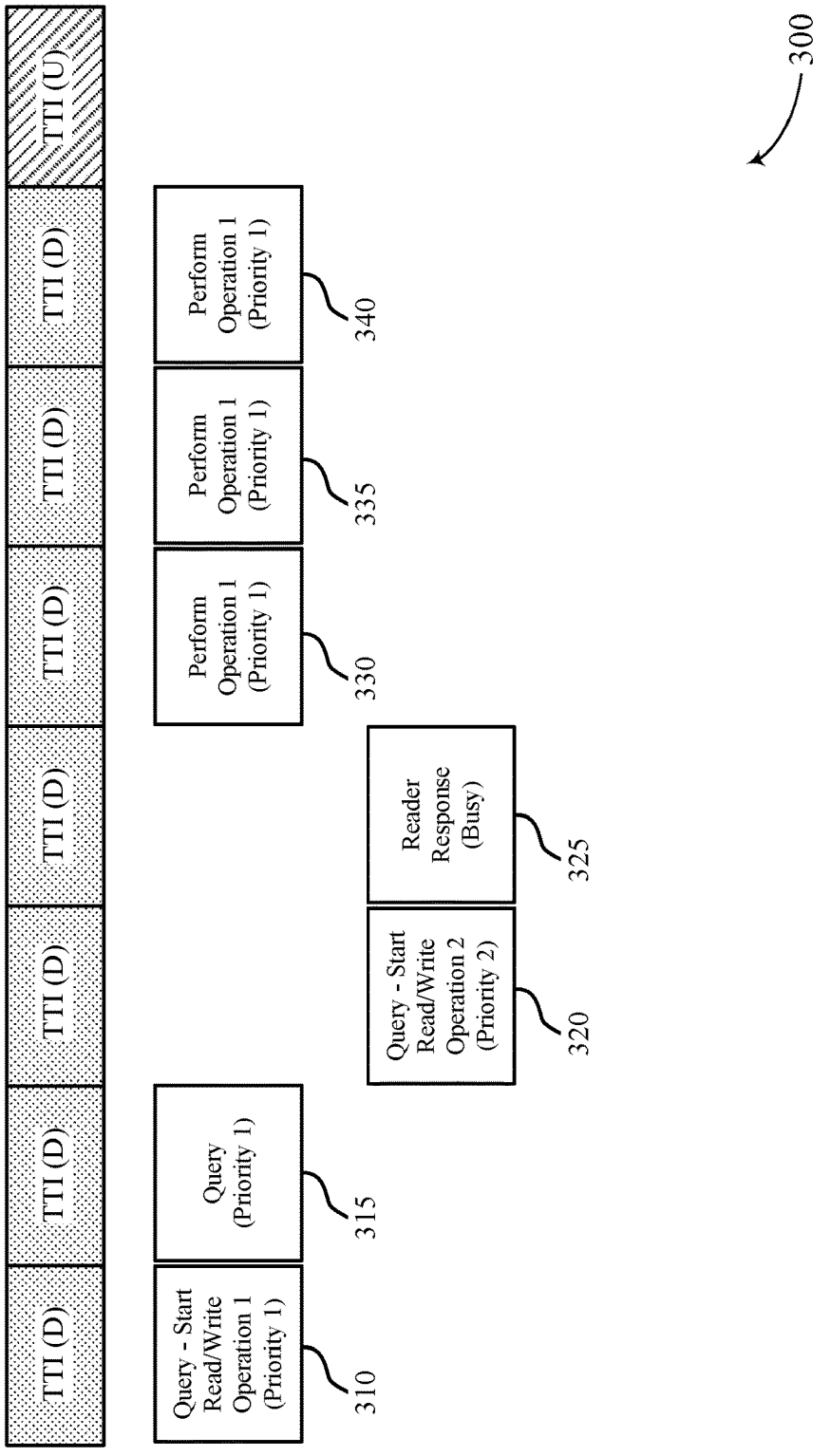

300
TTI (D)
TTI (D)
TTI (D)
TTI (D)
TTI (D)
TTI (D)
TTI (U)
Querying Device (RF Source 1) 305-a
Query - Start Read/Write Operation 1 (Priority 1)
310
Query (Priority 1)
315
Perform Operation 1 (Priority 1)
330
Perform Operation 1 (Priority 1)
335
Perform Operation 1 (Priority 1)
340
Querying Device (RF Source 2) 305-b
Query - Start Read/Write Operation 2 (Priority 2)
320
Reader Response (Busy)
325

FIG. 3

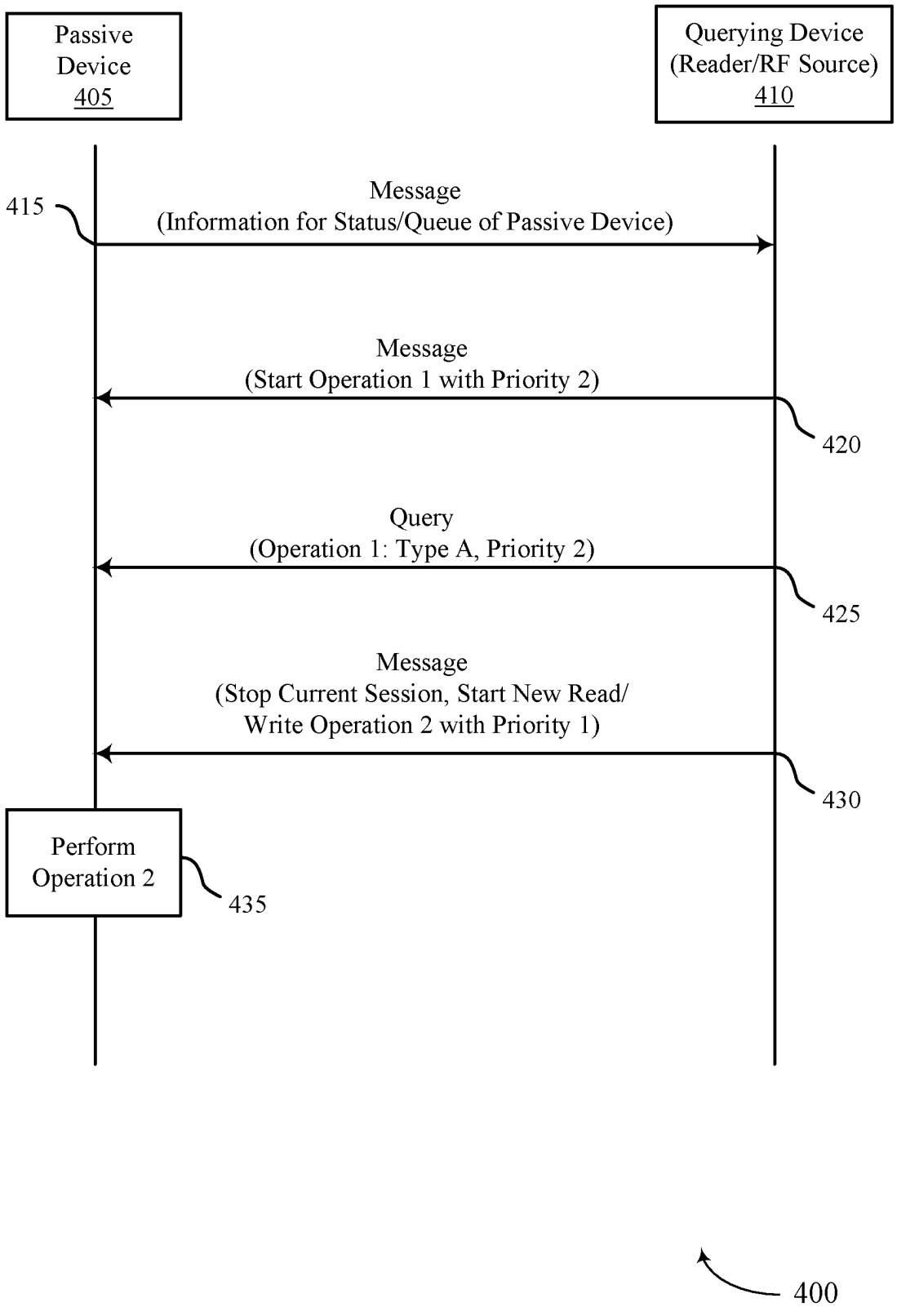

Passive Device 405
Querying Device (Reader/RF Source) 410
415
Message (Information for Status/Queue of Passive Device)
Message (Start Operation 1 with Priority 2)
420
Query (Operation 1: Type A, Priority 2)
425
Message (Stop Current Session, Start New Read/ Write Operation 2 with Priority 1)
430
Perform Operation 2
435
400

FIG. 4

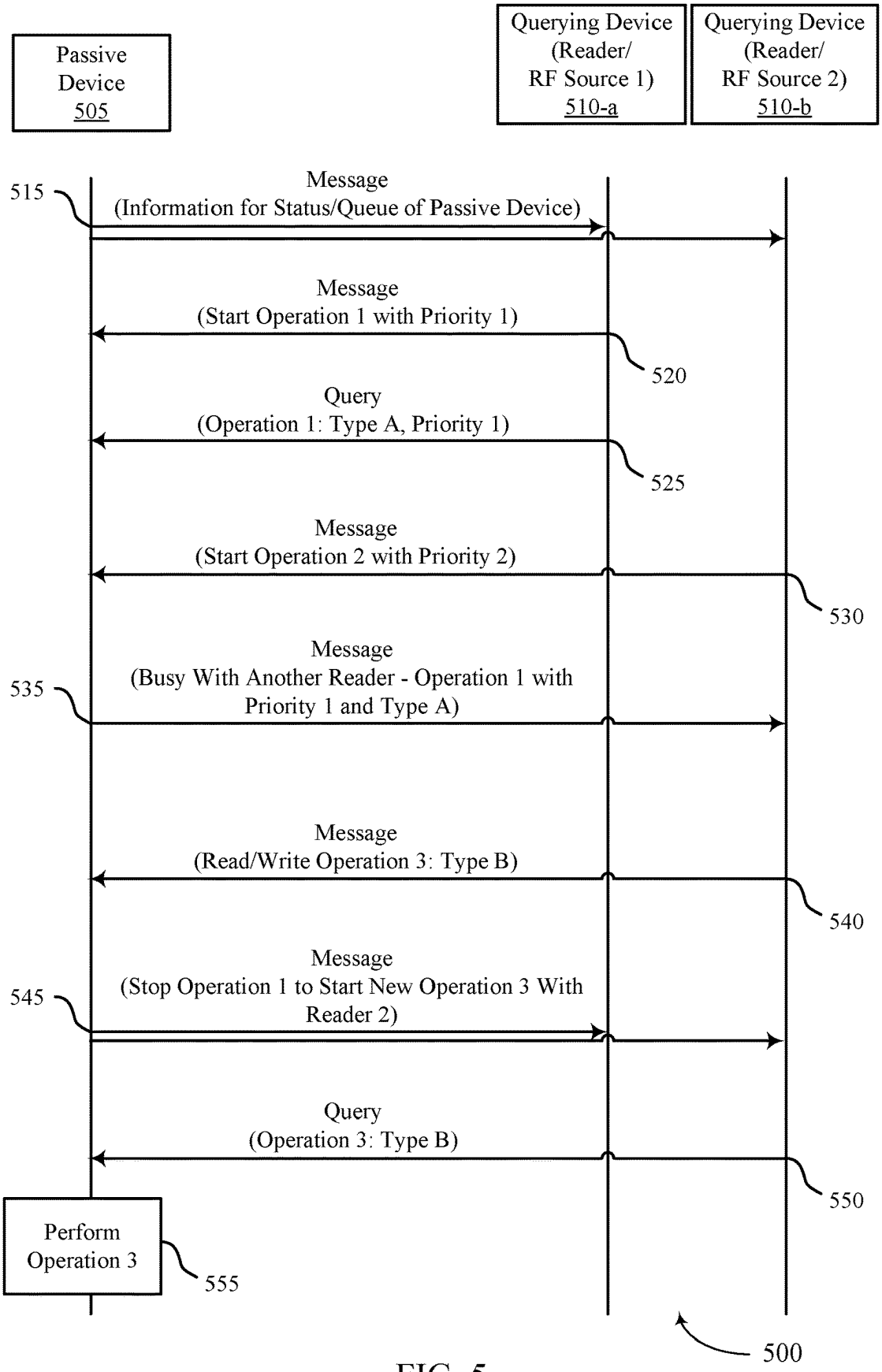

Passive Device 505
Querying Device (Reader/ RF Source 1) 510-a
Querying Device (Reader/ RF Source 2) 510-b
515
Message (Information for Status/Queue of Passive Device)
Message (Start Operation 1 with Priority 1)
520
Query (Operation 1: Type A, Priority 1)
525
Message (Start Operation 2 with Priority 2)
530
Message (Busy With Another Reader - Operation 1 with Priority 1 and Type A)
535
Message (Read/Write Operation 3: Type B)
540
Message (Stop Operation 1 to Start New Operation 3 With Reader 2)
545
Query (Operation 3: Type B)
550
Perform Operation 3
555
500

FIG. 5

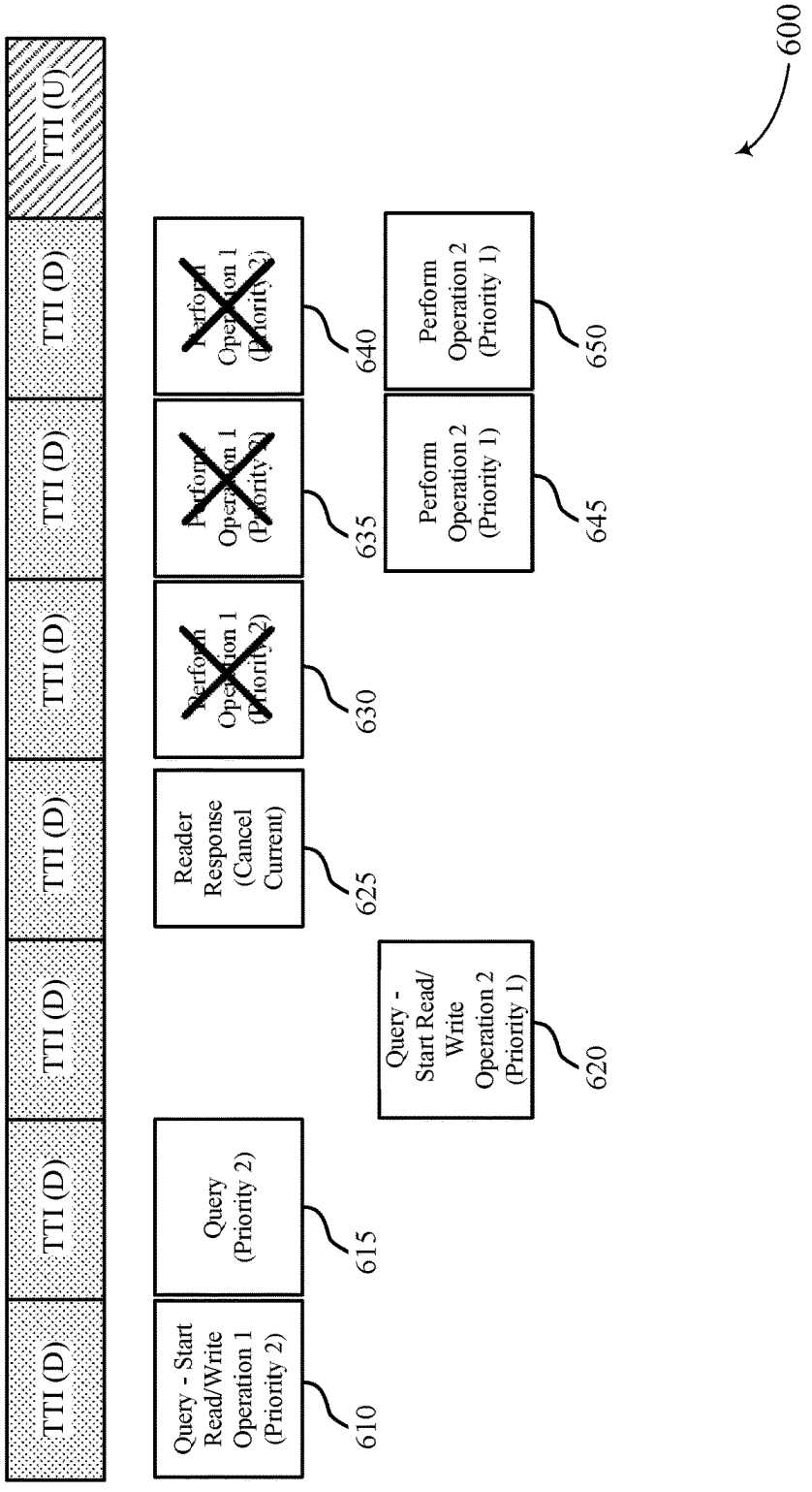

600
TTI (D)
TTI (D)
TTI (D)
TTI (D)
TTI (D)
TTI (U)
Querying Device (RF Source 1) 605-a
Query - Start Read/Write Operation 1 (Priority 2)
610
Query (Priority 2)
615
Reader Response (Cancel Current)
625
Perform Operation 1 (Priority 2)
630
Perform Operation 1 (Priority 2)
635
Perform Operation 1 (Priority 2)
640
Querying Device (RF Source 2) 605-b
Query - Start Read/ Write Operation 2 (Priority 1)
620
Perform Operation 2 (Priority 1)
645
Perform Operation 2 (Priority 1)
650

FIG. 6

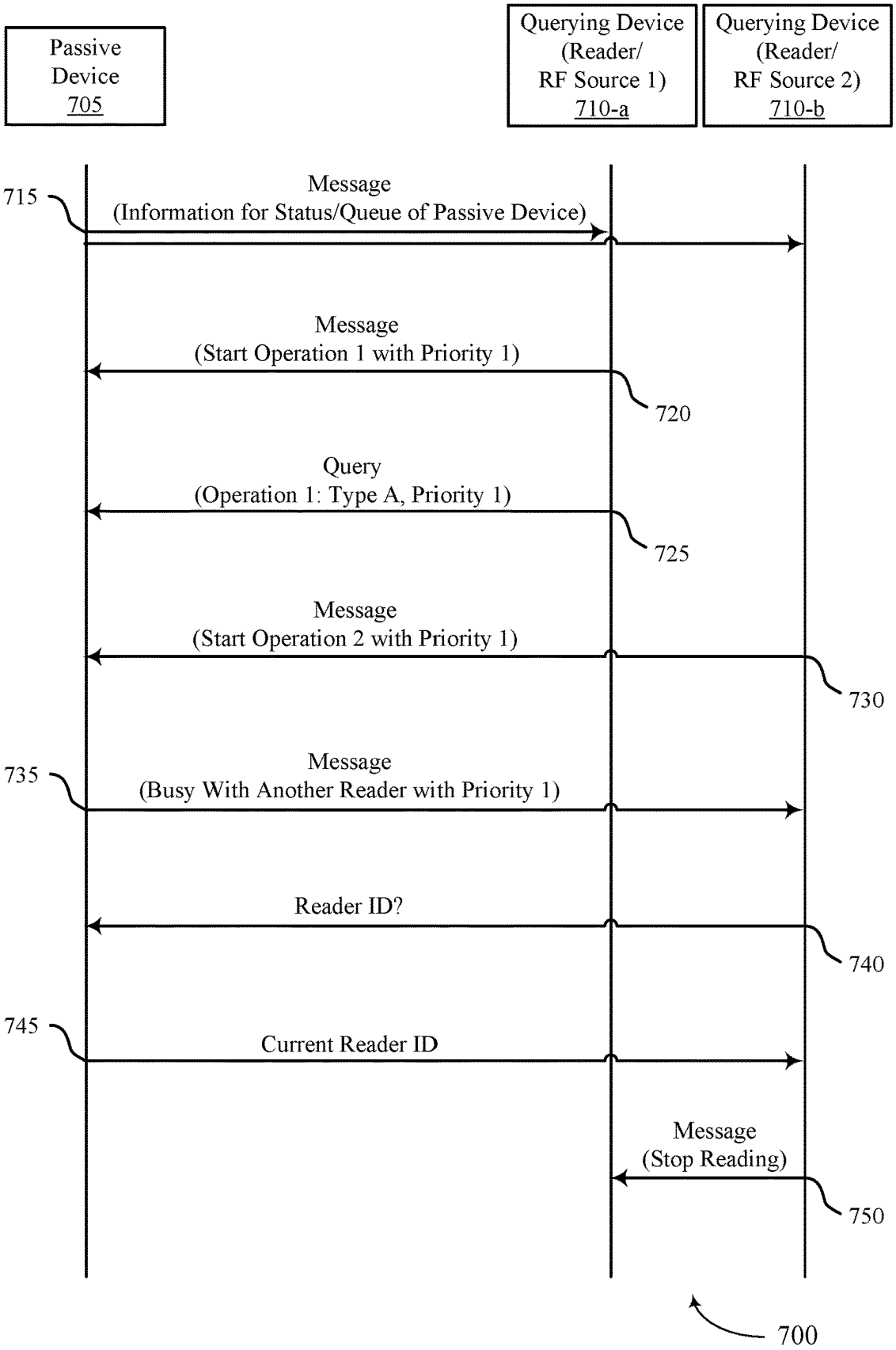

Passive Device 705
Querying Device (Reader/ RF Source 1) 710-a
Querying Device (Reader/ RF Source 2) 710-b
715
Message (Information for Status/Queue of Passive Device)
Message (Start Operation 1 with Priority 1)
720
Query (Operation 1: Type A, Priority 1)
725
Message (Start Operation 2 with Priority 1)
730
735
Message (Busy With Another Reader with Priority 1)
Reader ID?
740
745
Current Reader ID
Message (Stop Reading)
750
700

FIG. 7

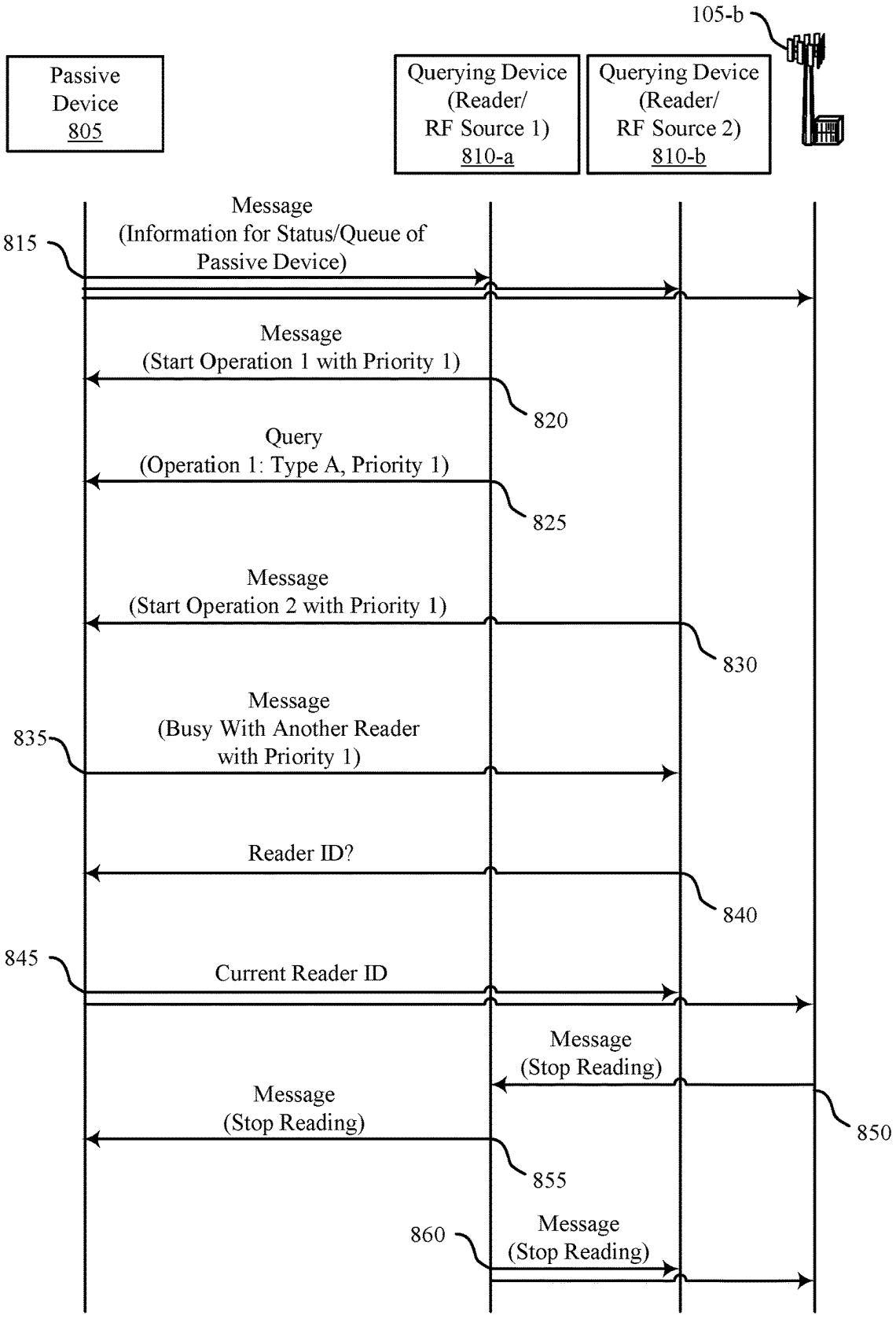

105-b
Passive Device 805
Querying Device (Reader/ RF Source 1) 810-a
Querying Device (Reader/ RF Source 2) 810-b
815
Message (Information for Status/Queue of Passive Device)
Message (Start Operation 1 with Priority 1)
820
Query (Operation 1: Type A, Priority 1)
825
Message (Start Operation 2 with Priority 1)
830
835
Message (Busy With Another Reader with Priority 1)
Reader ID?
840
845
Current Reader ID
Message (Stop Reading)
850
Message (Stop Reading)
855
860
Message (Stop Reading)
800

FIG. 8

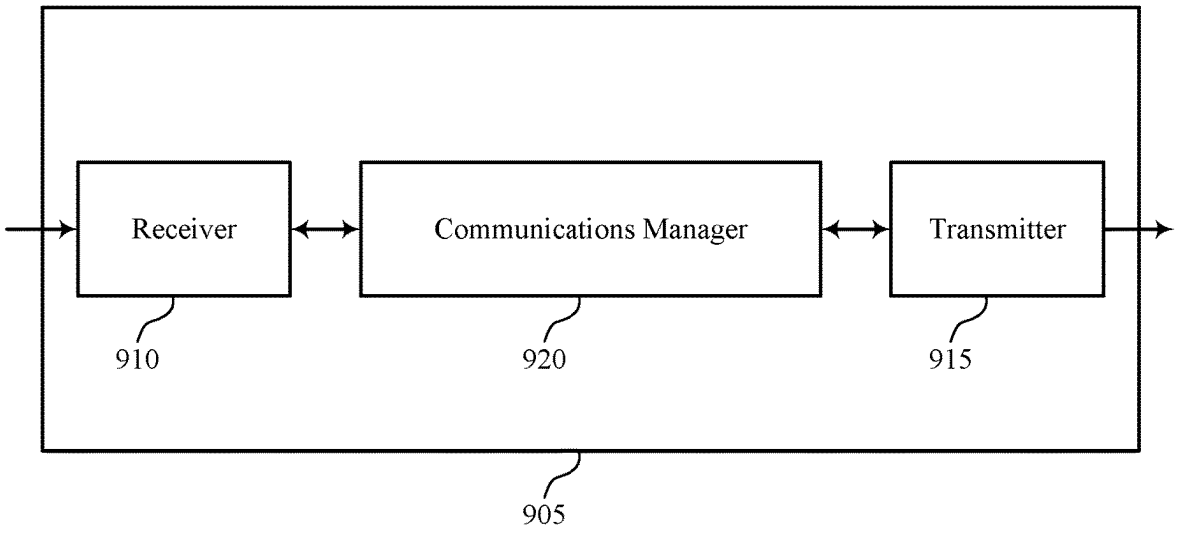

Receiver
Communications Manager
Transmitter
910
920
915
905
900

FIG. 9

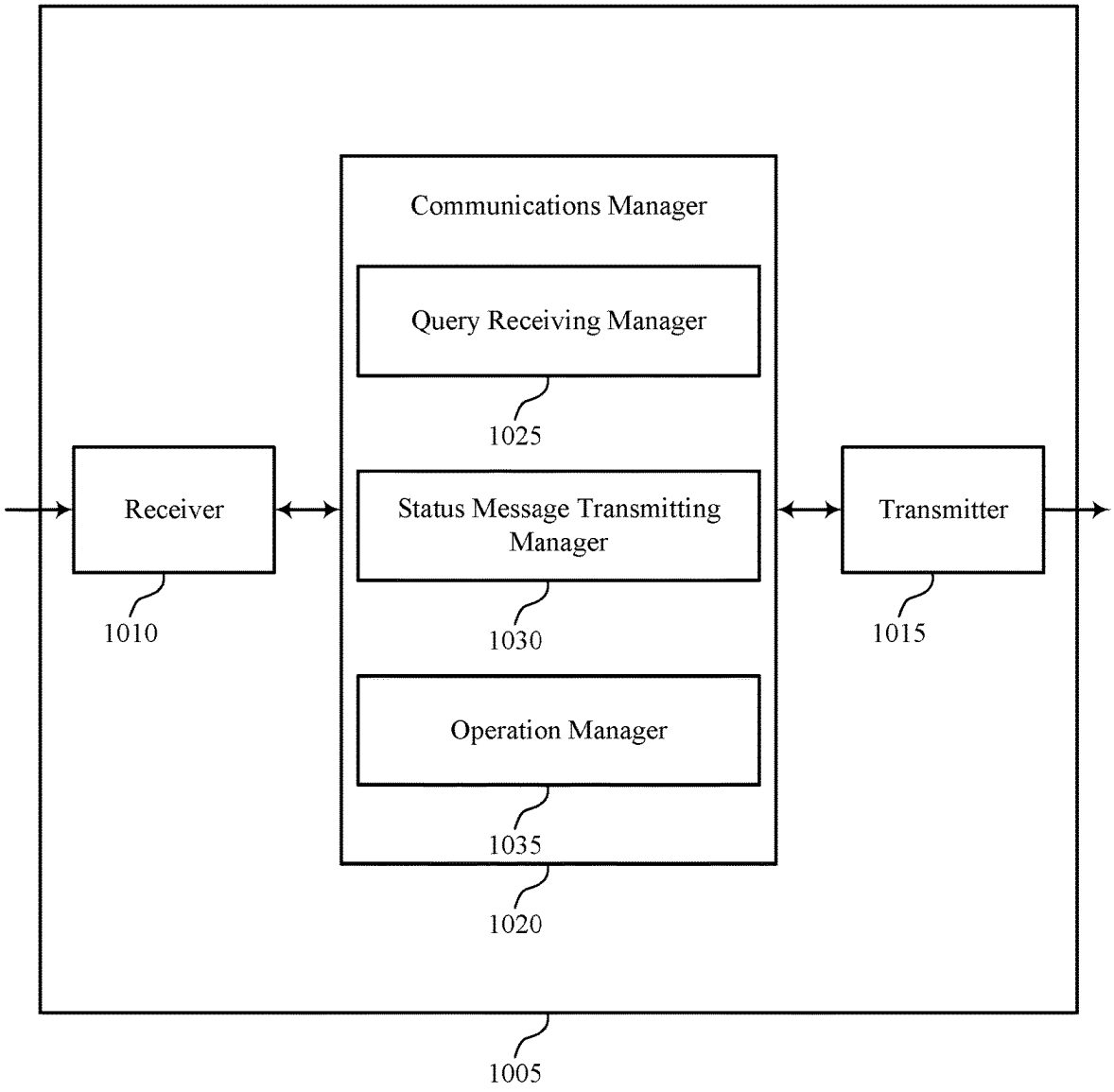

Communications Manager
Query Receiving Manager
1025
Receiver
Status Message Transmitting Manager
Transmitter
1010
1030
1015
Operation Manager
1035
1020
1005
1000

FIG. 10

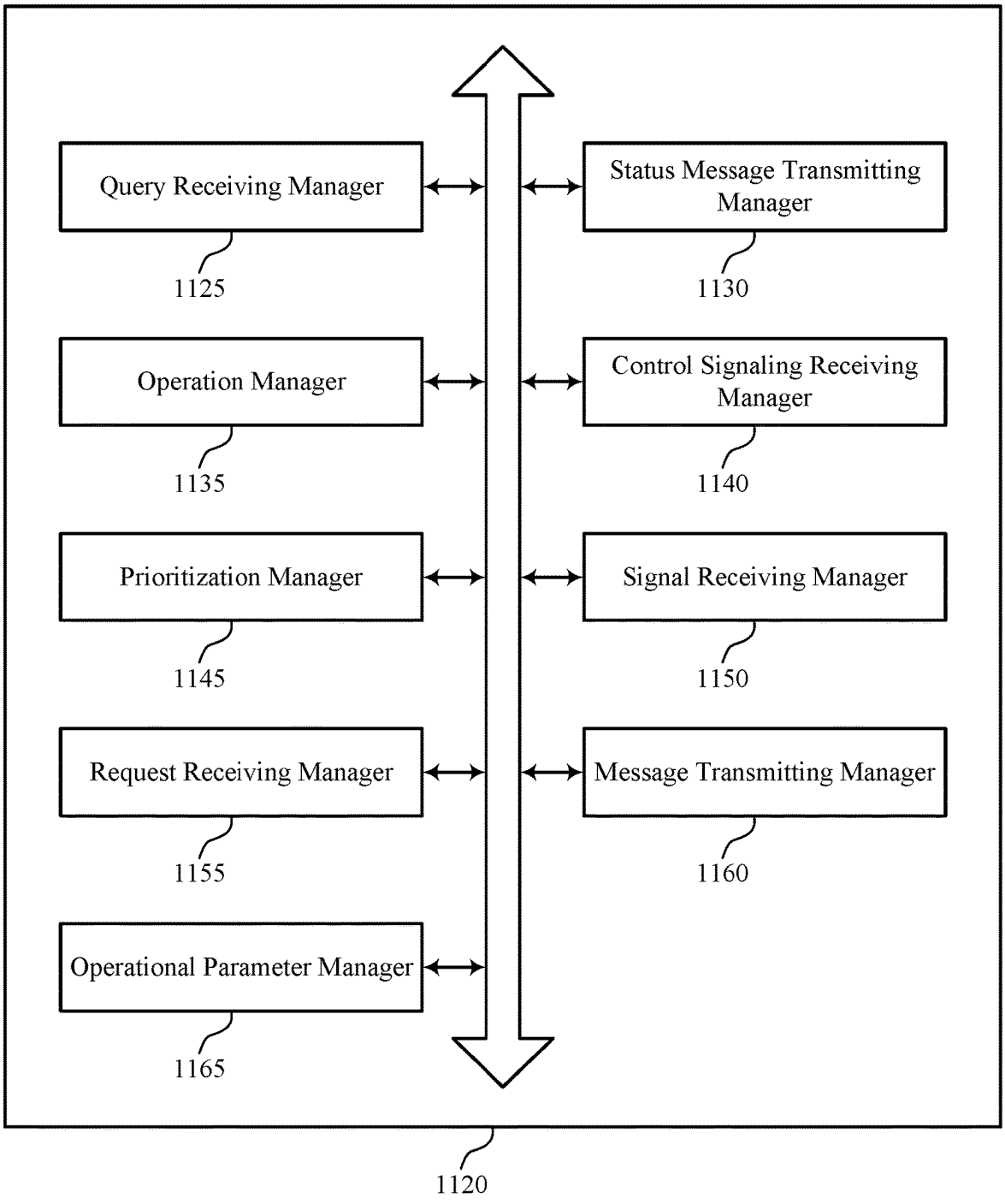

Query Receiving Manager
1125
Status Message Transmitting Manager
1130
Operation Manager
1135
Control Signaling Receiving Manager
1140
Prioritization Manager
1145
Signal Receiving Manager
1150
Request Receiving Manager
1155
Message Transmitting Manager
1160
Operational Parameter Manager
1165
1120
1100

FIG. 11

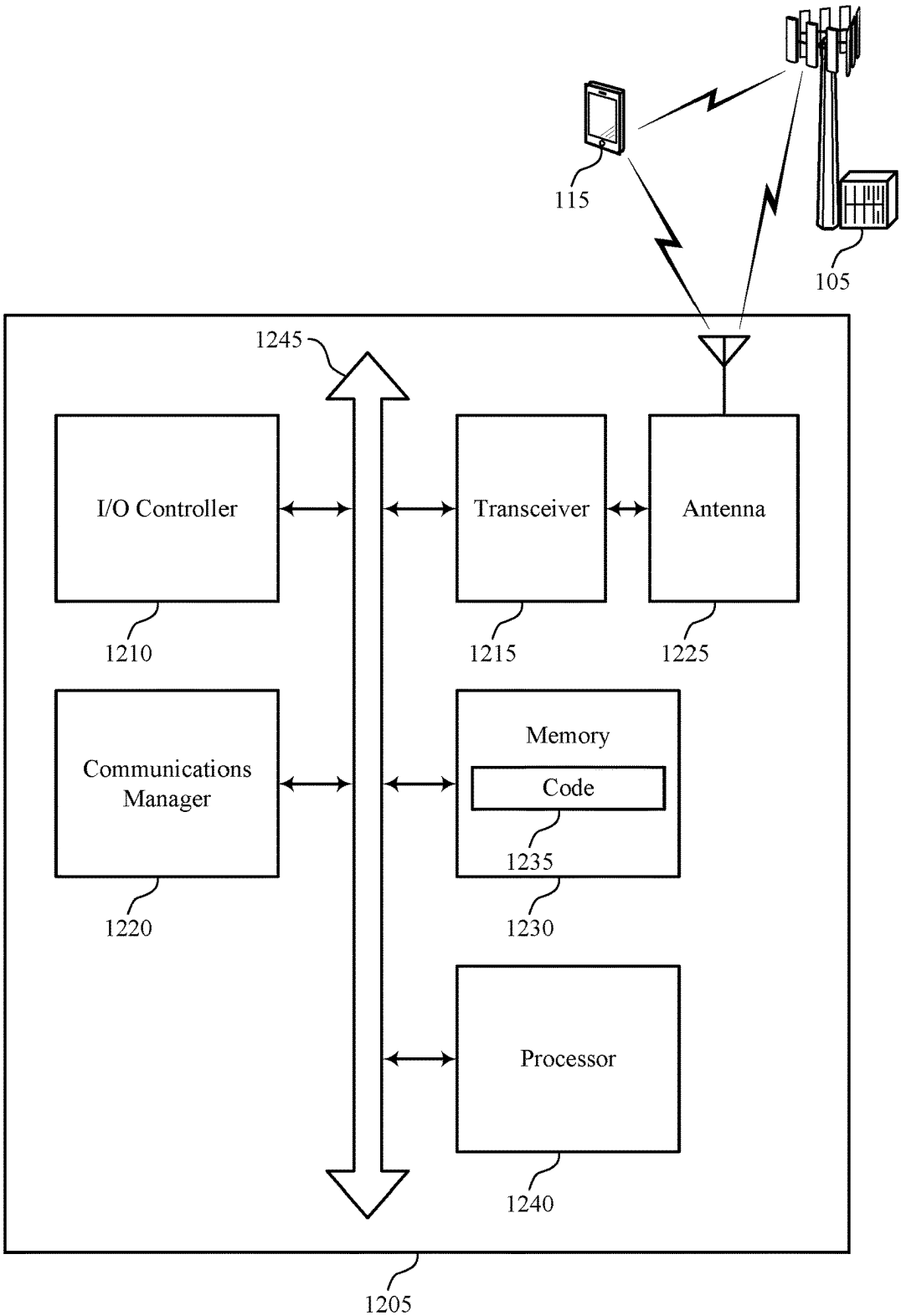

115
105
1245
I/O Controller
Transceiver
Antenna
1210
1215
1225
Communications Manager
Memory
Code
1235
1220
1230
Processor
1240
1205
1200

FIG. 12

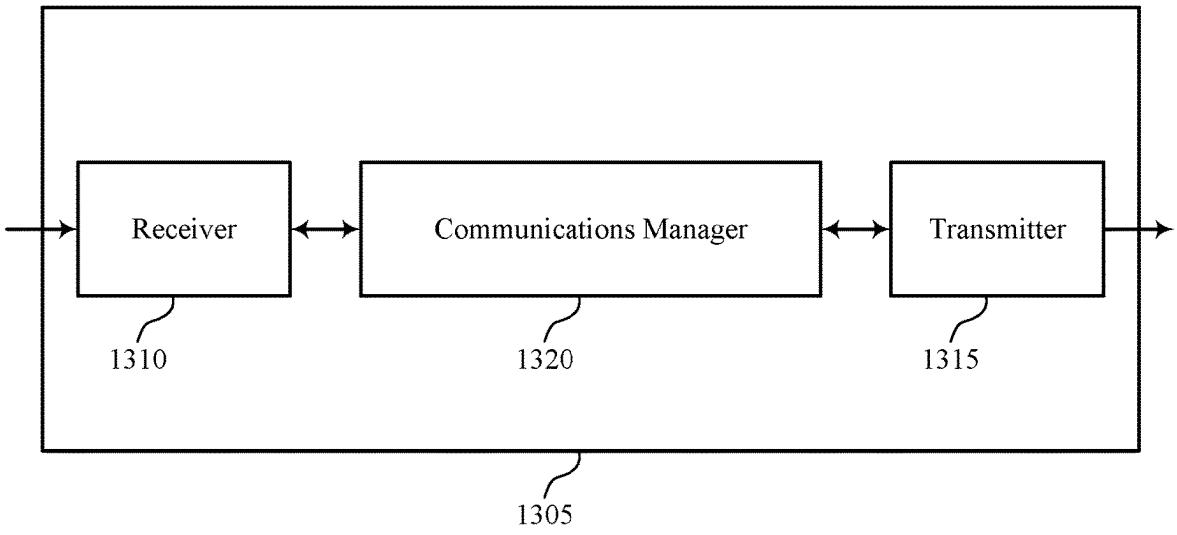

Receiver
Communications Manager
Transmitter
1310
1320
1315
1305
1300

FIG. 13

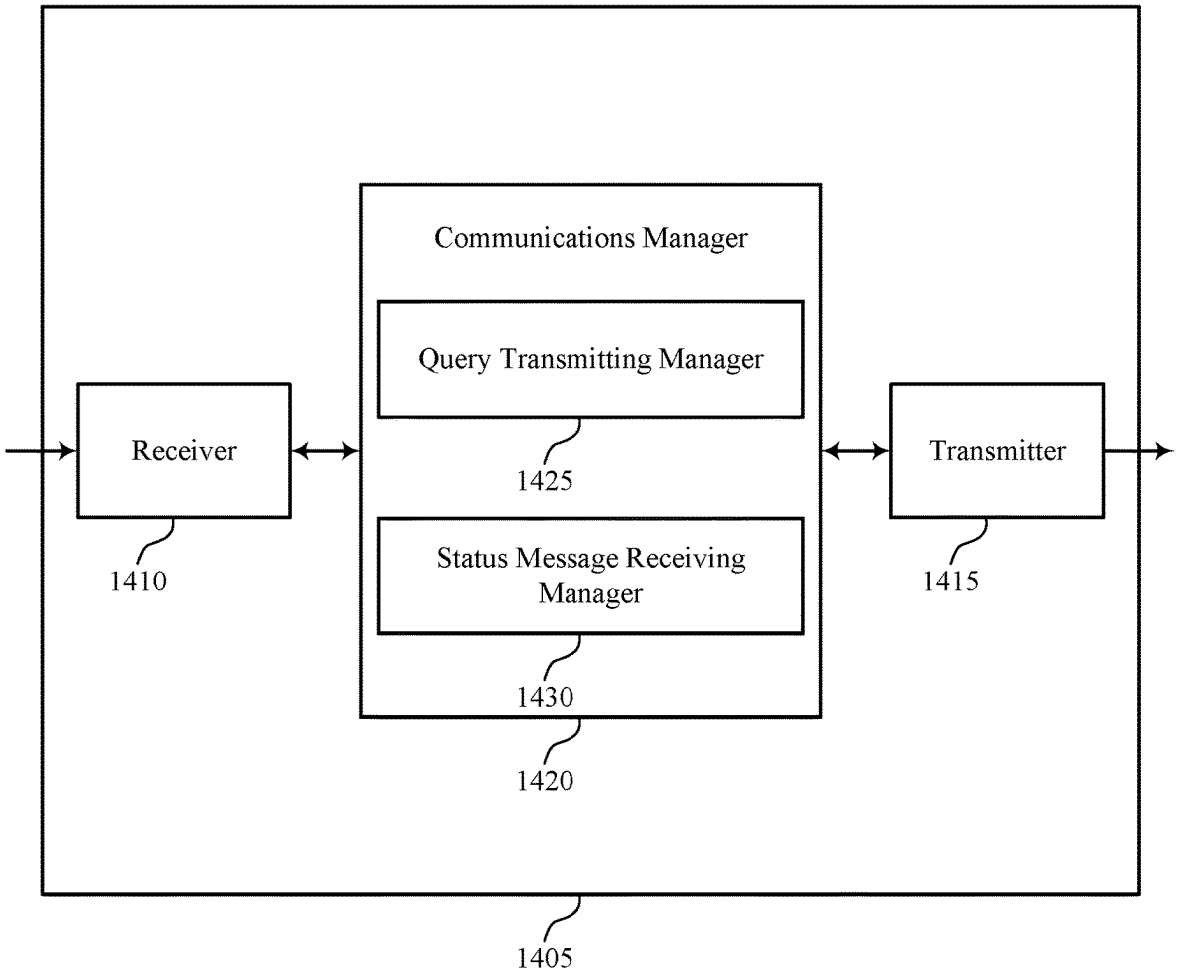

Communications Manager
Query Transmitting Manager
1425
Receiver
Transmitter
1410
1415
Status Message Receiving Manager
1430
1420
1405
1400

FIG. 14

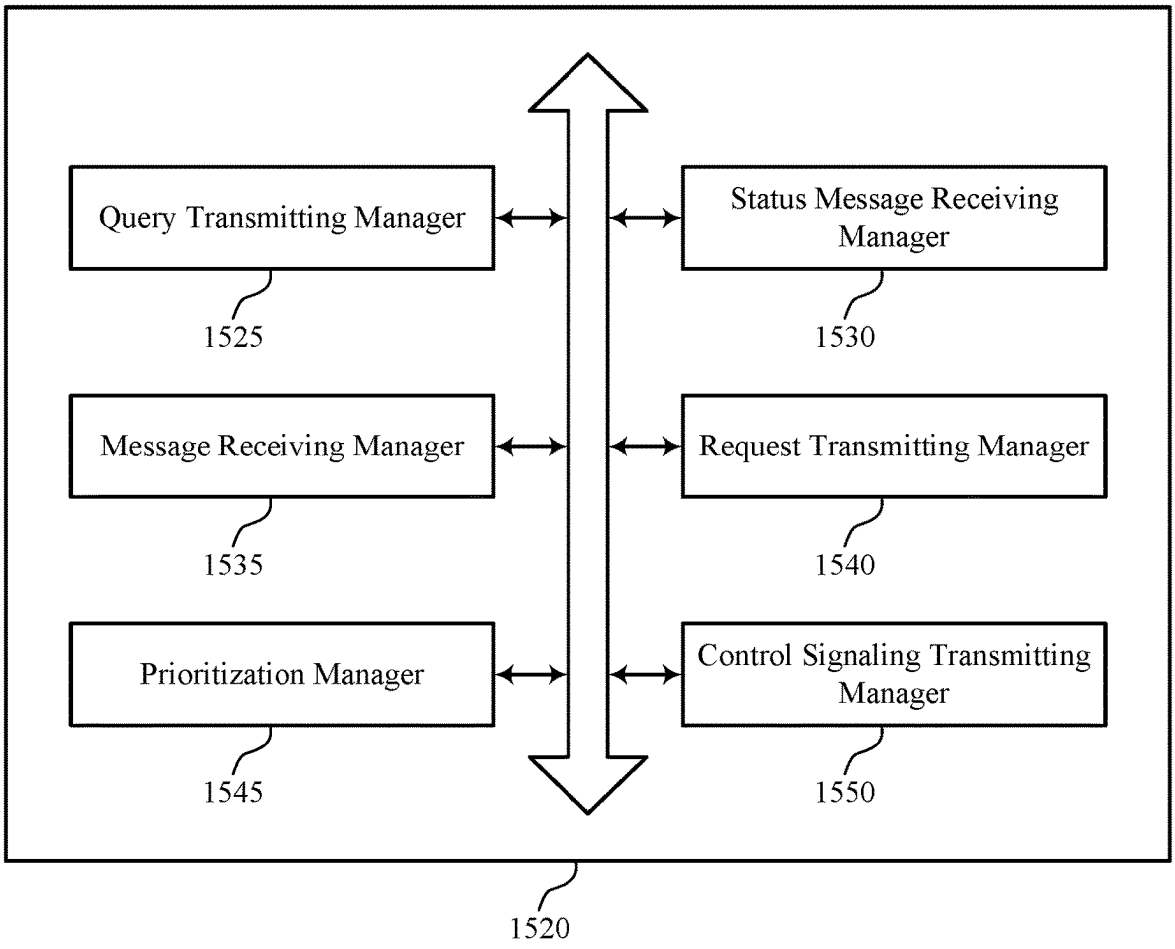

Query Transmitting Manager
1525
Status Message Receiving Manager
1530
Message Receiving Manager
1535
Request Transmitting Manager
1540
Prioritization Manager
1545
Control Signaling Transmitting Manager
1550
1520
1500

FIG. 15

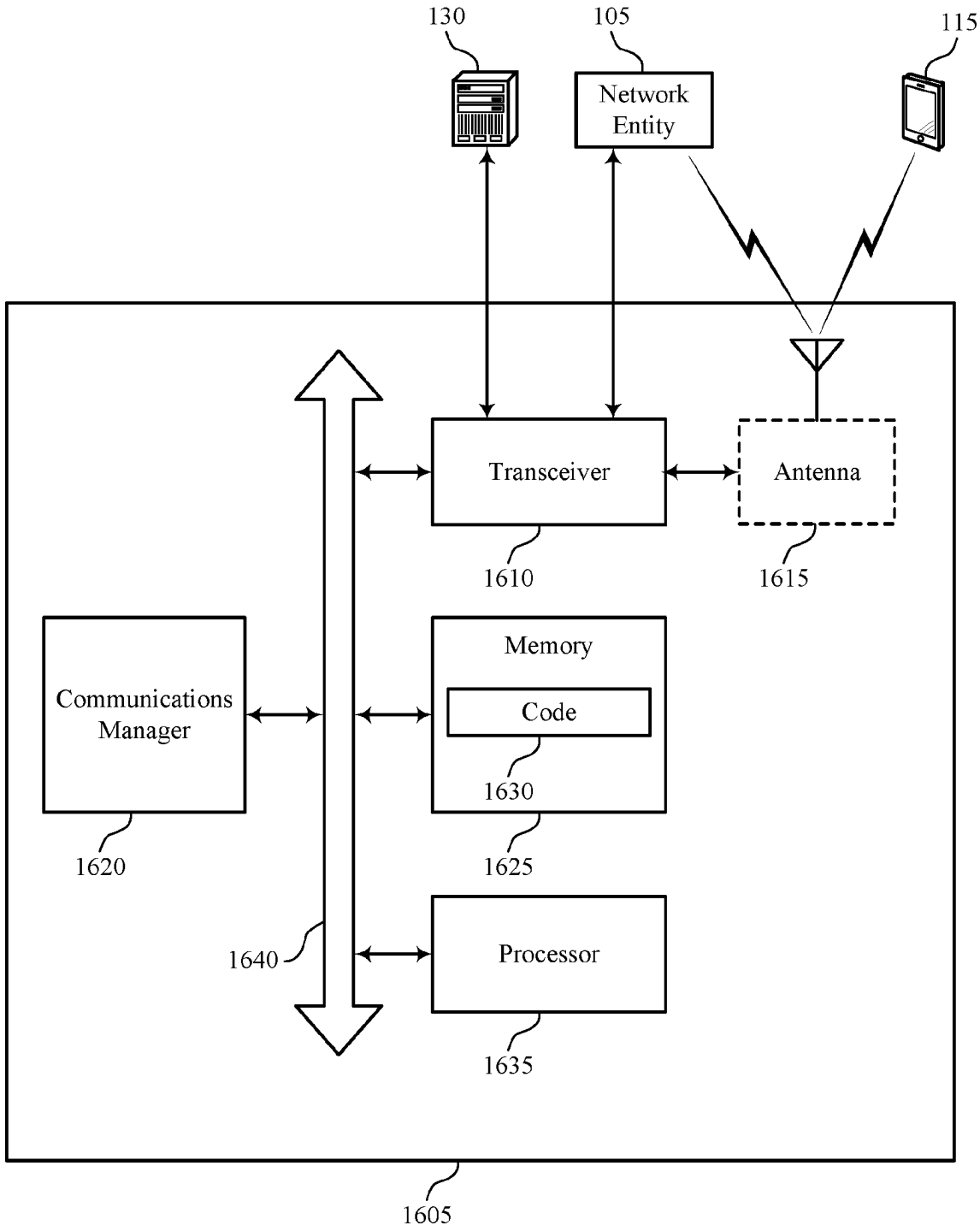

130
105
115
Network Entity
Transceiver
Antenna
1610
1615
Communications Manager
Memory
Code
1630
1620
1625
1640
Processor
1635
1605
1600

FIG. 16

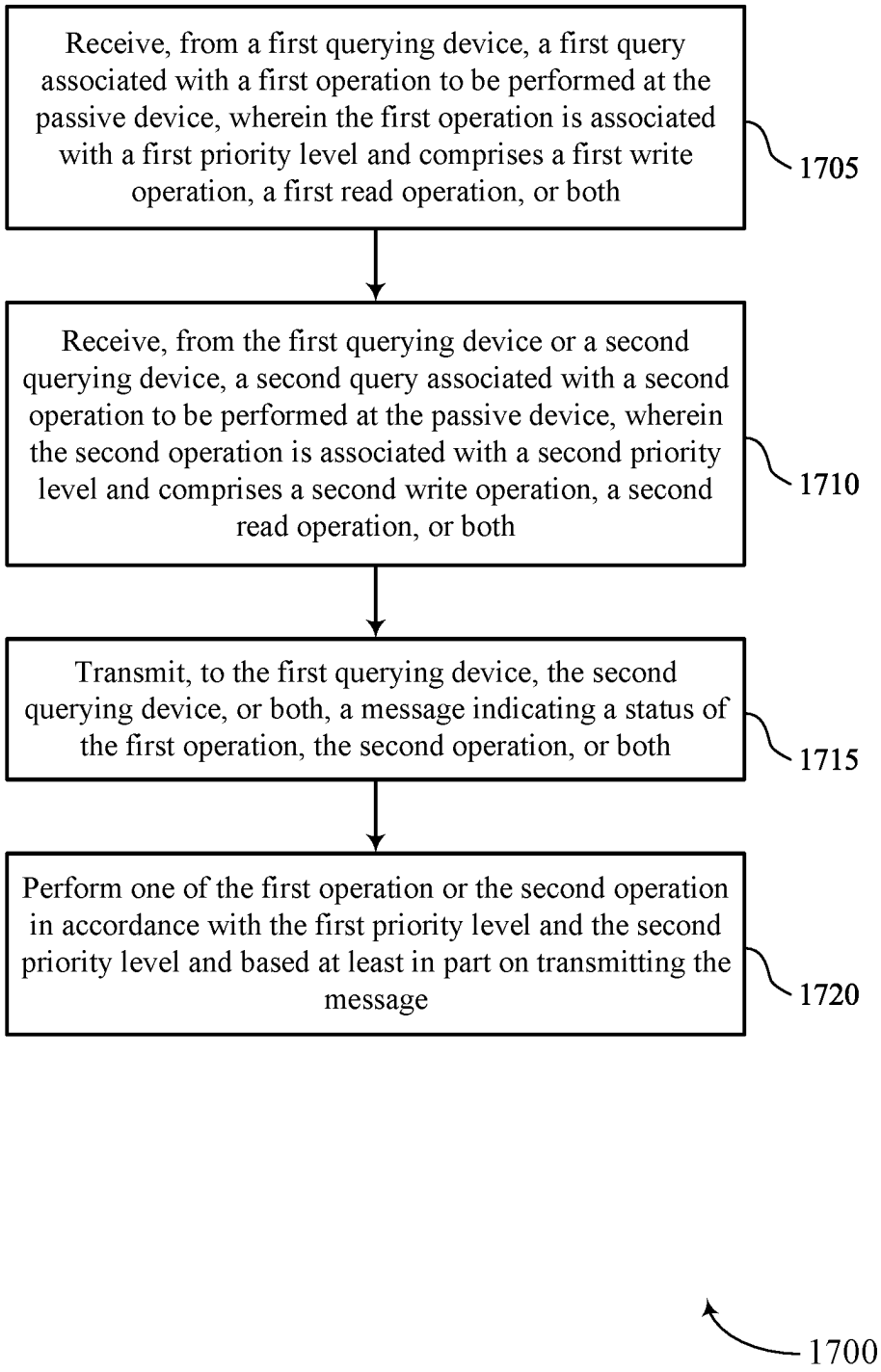

Receive, from a first querying device, a first query associated with a first operation to be performed at the passive device, wherein the first operation is associated with a first priority level and comprises a first write operation, a first read operation, or both
1705
Receive, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, wherein the second operation is associated with a second priority level and comprises a second write operation, a second read operation, or both
1710
Transmit, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both
1715
Perform one of the first operation or the second operation in accordance with the first priority level and the second priority level and based at least in part on transmitting the message
1720
1700

FIG. 17

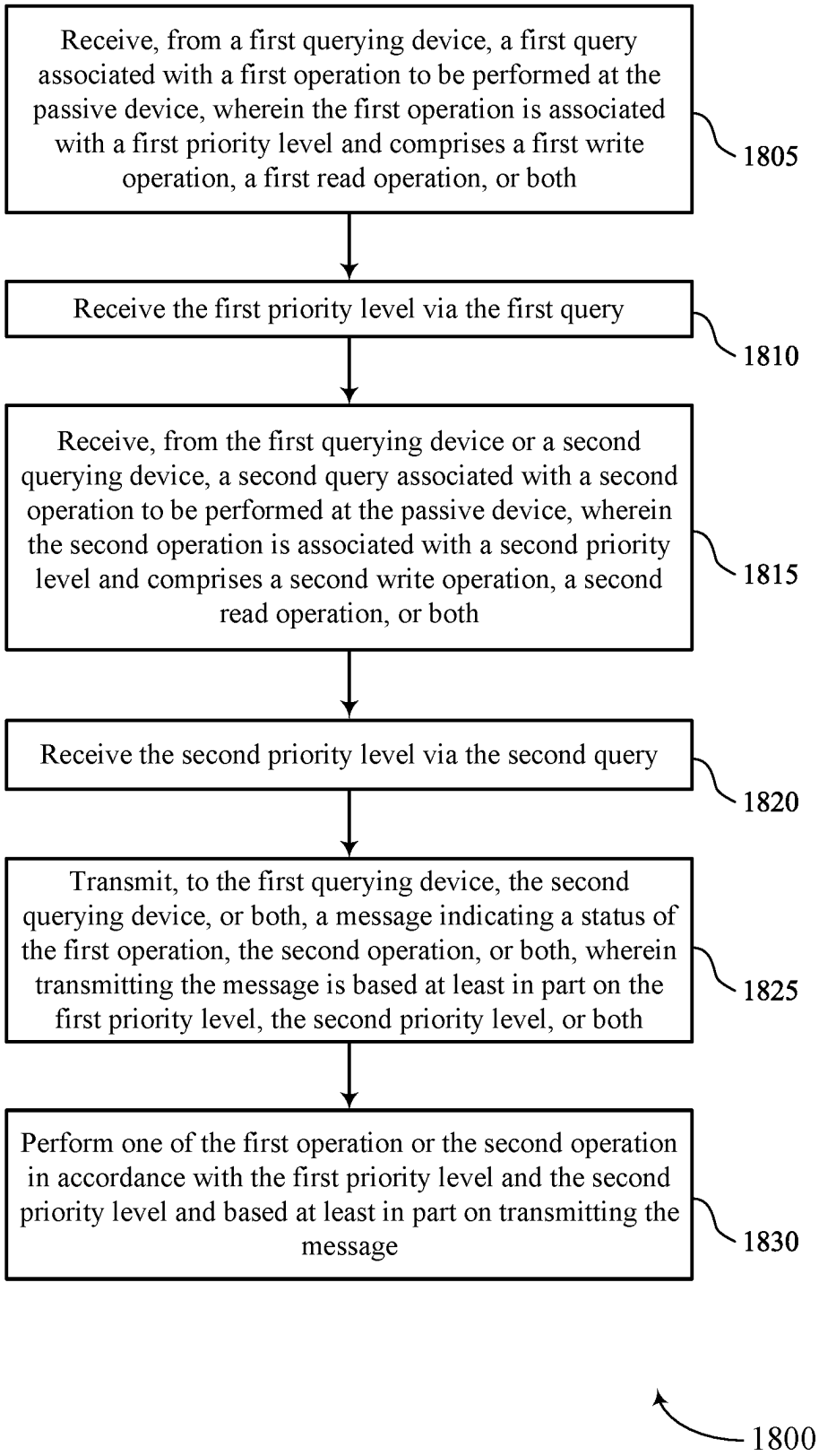

Receive, from a first querying device, a first query associated with a first operation to be performed at the passive device, wherein the first operation is associated with a first priority level and comprises a first write operation, a first read operation, or both
1805
Receive the first priority level via the first query
1810
Receive, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, wherein the second operation is associated with a second priority level and comprises a second write operation, a second read operation, or both
1815
Receive the second priority level via the second query
1820
Transmit, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both, wherein transmitting the message is based at least in part on the first priority level, the second priority level, or both
1825
Perform one of the first operation or the second operation in accordance with the first priority level and the second priority level and based at least in part on transmitting the message
1830
1800

FIG. 18

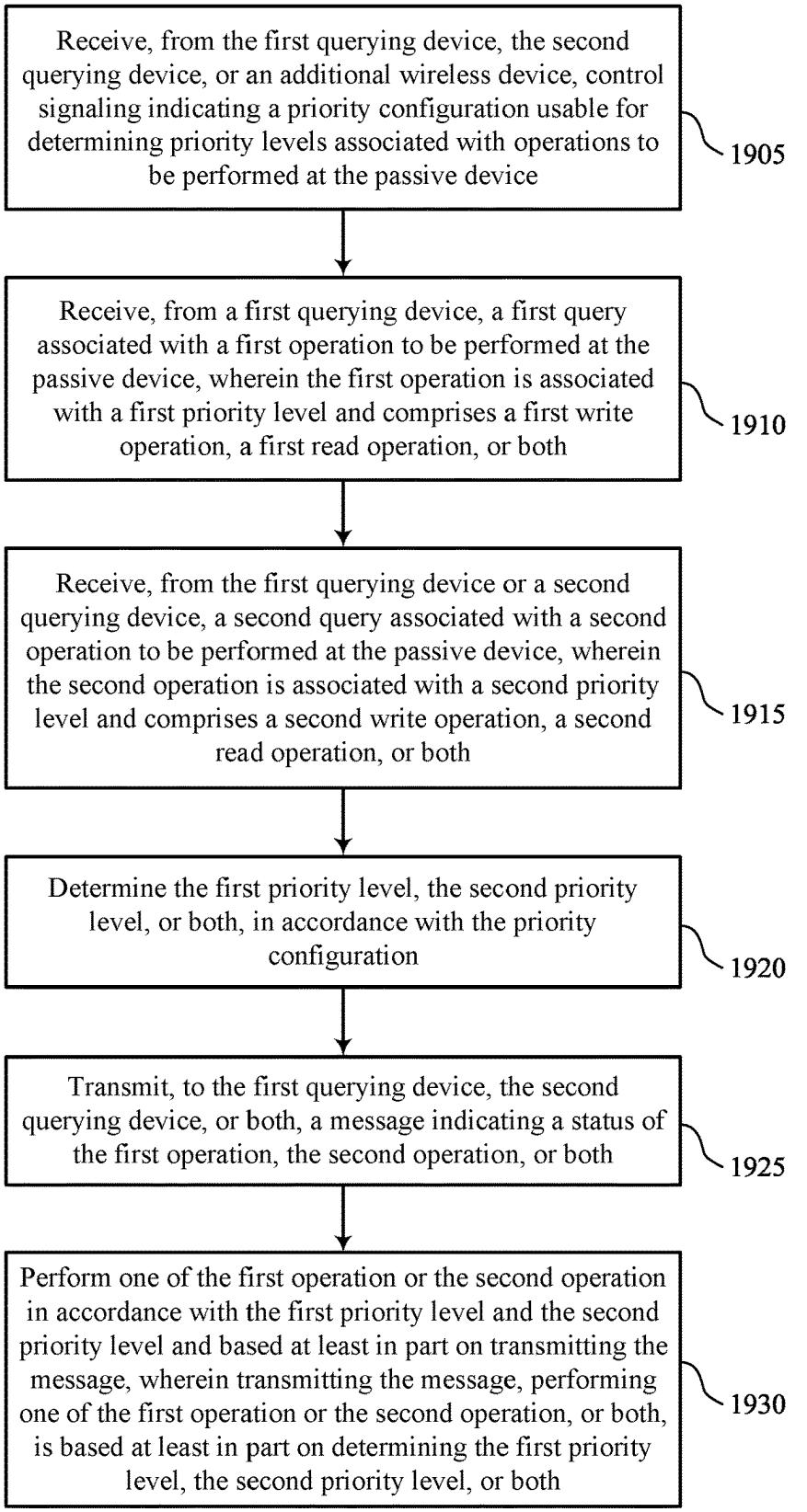

Receive, from the first querying device, the second querying device, or an additional wireless device, control signaling indicating a priority configuration usable for determining priority levels associated with operations to be performed at the passive device
1905
Receive, from a first querying device, a first query associated with a first operation to be performed at the passive device, wherein the first operation is associated with a first priority level and comprises a first write operation, a first read operation, or both
1910
Receive, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, wherein the second operation is associated with a second priority level and comprises a second write operation, a second read operation, or both
1915
Determine the first priority level, the second priority level, or both, in accordance with the priority configuration
1920
Transmit, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both
1925
Perform one of the first operation or the second operation in accordance with the first priority level and the second priority level and based at least in part on transmitting the message, wherein transmitting the message, performing one of the first operation or the second operation, or both, is based at least in part on determining the first priority level, the second priority level, or both
1930
1900

FIG. 19

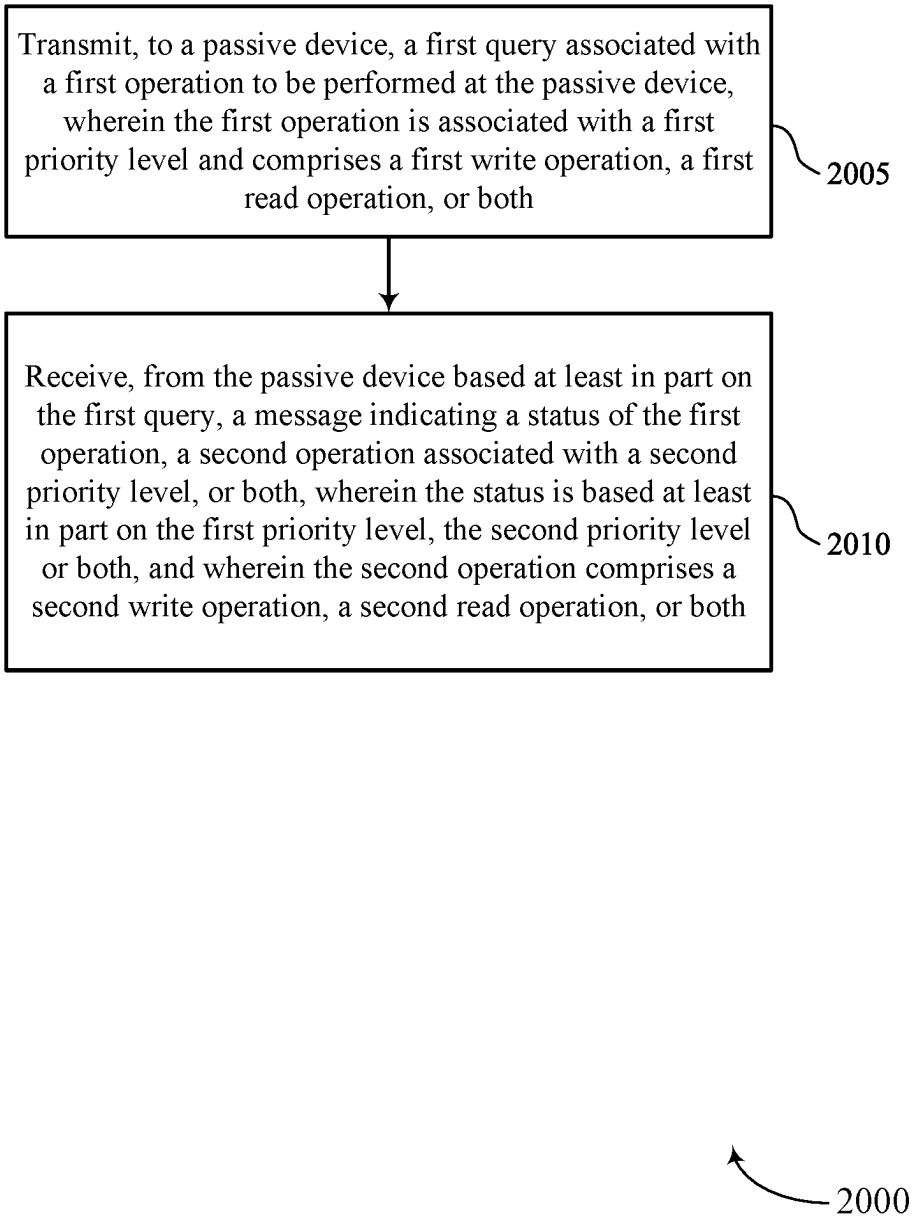

Transmit, to a passive device, a first query associated with a first operation to be performed at the passive device, wherein the first operation is associated with a first priority level and comprises a first write operation, a first read operation, or both
2005
Receive, from the passive device based at least in part on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, wherein the status is based at least in part on the first priority level, the second priority level or both, and wherein the second operation comprises a second write operation, a second read operation, or both
2010
2000

FIG. 20

TECHNIQUES FOR PRIORITIZING AND HANDLING CONFLICTING READ AND WRITE COMMANDS FOR PASSIVE DEVICES

CROSS REFERENCE

[0001] The present Application is a 371 national stage filing of International PCT Application No. PCT/CN2022/102274 by ELSHAFIE et al. entitled "TECHNIQUES FOR PRIORITIZING AND HANDLING CONFLICTING READ AND WRITE COMMANDS FOR PASSIVE DEVICES," filed Jun. 29, 2022, which is assigned to the assignee hereof, and which is expressly incorporated by reference in its entirety herein.

FIELD OF TECHNOLOGY

[0002] The following relates to wireless communications, including techniques for prioritizing and handling conflicting read and write commands for passive devices.

BACKGROUND

[0003] Wireless communications systems are widely deployed to provide various types of communication content such as voice, video, packet data, messaging, broadcast, and so on. These systems may be capable of supporting communication with multiple users by sharing the available system resources (e.g., time, frequency, and power). Examples of such multiple-access systems include fourth generation (4G) systems such as Long Term Evolution (LTE) systems, LTE-Advanced (LTE-A) systems, or LTE-A Pro systems, and fifth generation (5G) systems which may be referred to as New Radio (NR) systems. These systems may employ technologies such as code division multiple access (CDMA), time division multiple access (TDMA), frequency division multiple access (FDMA), orthogonal FDMA (OFDMA), or discrete Fourier transform spread orthogonal frequency division multiplexing (DFT-S-OFDM). A wireless multiple-access communications system may include one or more base stations, each supporting wireless communication for communication devices, which may be known as user equipment (UE).

[0004] Some wireless communications systems may include passive devices, such as radio frequency identifier (RFID) tags or passive Internet-of-Things (IoT) devices, to perform certain operations such as location tracking and identification. To communicate with a passive device, a querying device (e.g., UE, network entity) transmits a signal or query to the passive device to instruct the passive device to perform a read or write operation. Passive devices such as RFID tags may include relatively low-complexity devices with limited resources and processing power, and may therefore perform a limited number of read or write operations at a time.

SUMMARY

[0005] The described techniques relate to improved methods, systems, devices, and apparatuses that support techniques for prioritizing and handling conflicting read and write commands for passive devices. Generally, aspects of the present disclosure support techniques for signaling and configurations used to resolve relative priorities for reading and writing operations at passive devices. In particular, aspects of the present disclosure are directed to rules and conditions for determining relative priorities between reading and writing operations to be performed at passive devices, and signaling from passive devices used to indicate a status or relative priority of conflicting read/write operations. For example, a passive device may receive multiple queries for performing separate read or write operations, where the separate read or write operations are associated with different priorities. The priorities may be explicitly signaled via the queries, determined based on the type of operations to be performed (e.g., write operations may be prioritized over read operations), determined based on identifiers of the querying devices which transmitted the queries, or any combination thereof. In this example, the passive device may transmit a message to the querying device(s) which transmitted the queries to indicate the status of the scheduled read/write operations (e.g., indicate which operation will be performed), and may perform one of the operations in accordance with the relative priorities.

[0006] A method for wireless communication at a passive device is described. The method may include receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both, receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both, transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both, and performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message.

[0007] An apparatus for wireless communication at a passive device is described. The apparatus may include a processor, memory coupled with the processor, and instructions stored in the memory. The instructions may be executable by the processor to cause the apparatus to receive, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both, receive, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both, transmit, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both, and perform one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message.

[0008] Another apparatus for wireless communication at a passive device is described. The apparatus may include means for receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both, means for receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the

passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both, means for transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both, and means for performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message.

[0009] A non-transitory computer-readable medium storing code for wireless communication at a passive device is described. The code may include instructions executable by a processor to receive, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both, receive, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both, transmit, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both, and perform one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message.

[0010] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for receiving the first priority level via the first query and receiving the second priority level via the second query, where transmitting the message may be based on the first priority level, the second priority level, or both.

[0011] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, the first priority level may be based on the first operation including the first write operation and the second priority level may be based on the second operation including the second read operation.

[0012] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for prioritizing the first operation over the second read operation based on the first priority level being greater than the second priority level, where transmitting the message may be based on the prioritizing, and where performing one of the first operation or the second operation includes performing the first operation based on the prioritizing.

[0013] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for receiving, from the first querying device, the second querying device, or an additional wireless device, control signaling indicating a priority configuration usable for determining priority levels associated with operations to be performed at the passive device and determining the first priority level, the second priority level, or both, in accordance with the priority configuration, where transmitting the message, performing one of the first operation or the second operation, or both, may be based on determining the first priority level, the second priority level, or both.

[0014] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, the priority configuration includes one or more rules, one or more conditions, or both, for determining priority levels associated with operations to be performed at the passive device and determining the first priority level, the second priority level, or both, may be based on the one or more rules, the one or more conditions, or both.

[0015] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, the first priority level may be based on a first operation type associated with the first operation and the second priority level may be based on a second operation type associated with the second operation.

[0016] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, the second query may be received from the second querying device, the first priority level may be based on a first identifier associated with the first querying device, and the second priority level may be based on a second identifier associated with the second querying device.

[0017] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for transmitting the message to at least the second querying device based on the first priority level being greater than the second priority level, where the message includes an indication that the passive device may be busy performing the first operation.

[0018] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for transmitting the message to at least the first querying device based on the first priority level being less than the second priority level, where the message includes an indication that the passive device may have received the second query for the second operation having a higher priority than the first operation.

[0019] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for transmitting, via the message, an indication of the first priority level, the second priority level, a first operation type associated with the first operation, a second operation type associated with the second operation, a first identifier associated with the first querying device, a second identifier associated with the second querying device, or any combination thereof.

[0020] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, the second query may be received from the first querying device and the method, apparatuses, and non-transitory computer-readable medium may include further operations, features, means, or instructions for receiving, via the second query, an instruction to stop the first operation and to perform the second operation, where the passive device performs the second operation based on the instruction.

[0021] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for transmitting a set of multiple messages in accordance with a periodicity, the set of multiple messages associated with a queue of operations to be performed by the

passive device, the set of multiple messages including the message indicating the status of the first operation, the second operation, or both.

[0022] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for receiving a set of multiple signals in accordance with the periodicity, where transmitting the set of multiple messages may be based on receiving the set of multiple signals.

[0023] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, the message includes an indication that the passive device may be busy performing the first operation and the method, apparatuses, and non-transitory computer-readable medium may include further operations, features, means, or instructions for receiving, from the second querying device and in response to the message, a request for an identifier associated with the first querying device and transmitting a second message to the second querying device based on receiving the request, the second message indicating the identifier associated with the first querying device.

[0024] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, performing one of the first operation or the second operation comprises performing the first operation at a first time, and the method, apparatuses, and non-transitory computer-readable medium may include further operations, features, means, or instructions for performing the second operation at a second time subsequent to the first time based on the second priority level being less than the first priority level.

[0025] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, performing one of the first write operation or the second write operation may include operations, features, means, or instructions for adjusting one or more operational parameters at the passive device.

[0026] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, performing one of the first read operation or the second read operation may include operations, features, means, or instructions for transmitting a data message to the first querying device, the second querying device, or both.

[0027] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, the passive device includes a radio frequency identifier tag, a passive component of a wireless device, or both and the first querying device, the second querying device, or both, include a UE, a network entity, or both.

[0028] A method for wireless communication at a querying device is described. The method may include transmitting, to a passive device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both and receiving, from the passive device based on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, where the status is based on the first priority level, the second priority level or both, and where the second operation includes a second write operation, a second read operation, or both.

[0029] An apparatus for wireless communication at a querying device is described. The apparatus may include a processor, memory coupled with the processor, and instructions stored in the memory. The instructions may be executable by the processor to cause the apparatus to transmit, to a passive device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both and receive, from the passive device based on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, where the status is based on the first priority level, the second priority level or both, and where the second operation includes a second write operation, a second read operation, or both.

[0030] Another apparatus for wireless communication at a querying device is described. The apparatus may include means for transmitting, to a passive device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both and means for receiving, from the passive device based on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, where the status is based on the first priority level, the second priority level or both, and where the second operation includes a second write operation, a second read operation, or both.

[0031] A non-transitory computer-readable medium storing code for wireless communication at a querying device is described. The code may include instructions executable by a processor to transmit, to a passive device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both and receive, from the passive device based on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, where the status is based on the first priority level, the second priority level or both, and where the second operation includes a second write operation, a second read operation, or both.

[0032] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for receiving, from the passive device, a second message including an indicator associated with a second querying device and a request to stop an operation to be performed at the passive device that was initiated by the second querying device and transmitting, to the second querying device based on the second message, a third message indicating the request for the second querying device to stop the operation initiated by the second querying device.

[0033] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for transmitting the first priority level via the first query, where receiving the message may be based on the first priority level.

[0034] In some examples of the method, apparatuses, and non-transitory computer-readable medium described herein, where the first priority level may be based on the first operation including the first write operation or the first read operation, and where the second priority level may be based

on the second operation including the second write operation or the second read operation and where the first priority level may be based on a first operation type associated with the first operation, and where the second priority level may be based on a second operation type associated with the second operation.

[0035] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for transmitting, to the passive device, control signaling indicating a priority configuration usable for determining priority levels associated with operations to be performed at the passive device, where receiving the message may be based on the priority configuration.

[0036] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for receiving the message from the passive device based on the first priority level being less than the second priority level, where the message includes an indication that the second operation may have a higher priority than the first operation.

[0037] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for receiving the message from the passive device based on the first priority level being less than the second priority level, where the message includes an indication that the second operation may have a higher priority than the first operation, where the second operation may be associated with a second querying device.

[0038] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for transmitting, to the passive device and in response to the message, a request for an identifier associated with the second querying device, receiving a second message from the passive device based on transmitting the request, the second message indicating the identifier associated with the second querying device, and transmitting a third message to the second querying device based on receiving the second message, the third message including a second request for the second querying device to stop the second operation.

[0039] Some examples of the method, apparatuses, and non-transitory computer-readable medium described herein may further include operations, features, means, or instructions for transmitting, to the passive device, a second query associated with the second operation, where the second query includes an instruction for the passive device to stop the first operation and to perform the second operation.

BRIEF DESCRIPTION OF THE DRAWINGS

[0040] FIG. **1** illustrates an example of a wireless communications system that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0041] FIG. **2** illustrates an example of a wireless communications system that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0042] FIG. **3** illustrates an example of a resource configuration that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0043] FIG. **4** illustrates an example of a process flow that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0044] FIG. **5** illustrates an example of a process flow that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0045] FIG. **6** illustrates an example of a resource configuration that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0046] FIG. **7** illustrates an example of a process flow that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0047] FIG. **8** illustrates an example of a process flow that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0048] FIGS. **9** and **10** show block diagrams of devices that support techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0049] FIG. **11** shows a block diagram of a communications manager that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0050] FIG. **12** shows a diagram of a system including a device that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0051] FIGS. **13** and **14** show block diagrams of devices that support techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0052] FIG. **15** shows a block diagram of a communications manager that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0053] FIG. **16** shows a diagram of a system including a device that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

[0054] FIGS. **17** through **20** show flowcharts illustrating methods that support techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure.

DETAILED DESCRIPTION

[0055] Some wireless communications systems may include passive devices, such as radio frequency identifier (RFID) tags, passive Internet-of-Things (IoT) devices, etc.

to perform certain operations such as location tracking and identification. To communicate with a passive device, a querying device (e.g., a user equipment (UE), network entity) may transmit a signal or query to the passive device to instruct the passive device to perform a writing operation and/or a reading operation. A writing operation may include one-way signaling from the querying device to the passive device to configure or adjust parameters of the passive device. Comparatively, a reading operation may include two-way signaling between the querying device and the passive device in which the querying device transmits a query or message, and receives or "reads" some responsive signaling back from the passive device.

[0056] Passive devices (e.g., RFID tags, passive IoT devices, hybrid devices with passive and active components) may include relatively low-complexity devices with limited resources and processing power. As such, passive devices may only be able to perform a limited number of read or write operations at a time. Moreover, some current wireless communications systems do not provide any signaling or other mechanisms to resolve conflicting (e.g., overlapping) read and write operations at passive devices. As such, upon receiving multiple queries for performing reading and/or writing operations, it may be unclear which reading/writing operation a passive device is expected to perform.

[0057] Accordingly, aspects of the present disclosure are directed to signaling and other mechanisms used to determine and resolve relative priorities for writing and reading operations at passive devices. In particular, aspects of the present disclosure are directed to rules and conditions for determining relative priorities between writing and reading operations to be performed at passive devices, and signaling from passive devices used to indicate a status or relative priority of conflicting read/write operations. Moreover, techniques described herein support signaling between querying devices and passive devices, as well as signaling between multiple querying devices, which may be used to pre-empt operations that are to be performed at a passive device.

[0058] For example, a passive device may receive multiple queries for performing separate read or write operations, where the separate read or write operations are associated with different priorities. The queries may be received from the same or different querying devices. The priorities may be explicitly signaled via the queries, determined based on the type of operations to be performed (e.g., write operations may be prioritized over read operations), determined based on identifiers of the querying devices which transmitted the queries, or any combination thereof. In this example, the passive device may transmit a message to the querying device(s) which transmitted the queries to indicate the status of the scheduled read/write operations (e.g., indicate which operation will be performed), and may perform one of the operations in accordance with the respective priorities. In some implementations, the passive device may periodically transmit (e.g., broadcast) a status of the passive device indicating whether the passive device is busy performing operations, indicating relative priorities of the scheduled operations, etc.

[0059] Aspects of the disclosure are initially described in the context of wireless communications systems. Additional aspects of the disclosure are described in the context of example resource configurations and example process flows. Aspects of the disclosure are further illustrated by and described with reference to apparatus diagrams, system diagrams, and flowcharts that relate to techniques for prioritizing and handling conflicting read and write commands for passive devices.

[0060] FIG. **1** illustrates an example of a wireless communications system **100** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The wireless communications system **100** may include one or more network entities **105**, one or more UEs **115**, and a core network **130**. In some examples, the wireless communications system **100** may be a Long Term Evolution (LTE) network, an LTE-Advanced (LTE-A) network, an LTE-A Pro network, a New Radio (NR) network, or a network operating in accordance with other systems and radio technologies, including future systems and radio technologies not explicitly mentioned herein.

[0061] The network entities **105** may be dispersed throughout a geographic area to form the wireless communications system **100** and may include devices in different forms or having different capabilities. In various examples, a network entity **105** may be referred to as a network element, a mobility element, a radio access network (RAN) node, or network equipment, among other nomenclature. In some examples, network entities **105** and UEs **115** may wirelessly communicate via one or more communication links **125** (e.g., a radio frequency (RF) access link). For example, a network entity **105** may support a coverage area **110** (e.g., a geographic coverage area) over which the UEs **115** and the network entity **105** may establish one or more communication links **125**. The coverage area **110** may be an example of a geographic area over which a network entity **105** and a UE **115** may support the communication of signals according to one or more radio access technologies (RATs).

[0062] The UEs **115** may be dispersed throughout a coverage area **110** of the wireless communications system **100**, and each UE **115** may be stationary, or mobile, or both at different times. The UEs **115** may be devices in different forms or having different capabilities. Some example UEs **115** are illustrated in FIG. **1**. The UEs **115** described herein may be capable of supporting communications with various types of devices, such as other UEs **115** or network entities **105**, as shown in FIG. **1**.

[0063] As described herein, a node of the wireless communications system **100**, which may be referred to as a network node, or a wireless node, may be a network entity **105** (e.g., any network entity described herein), a UE **115** (e.g., any UE described herein), a network controller, an apparatus, a device, a computing system, one or more components, or another suitable processing entity configured to perform any of the techniques described herein. For example, a node may be a UE **115**. As another example, a node may be a network entity **105**. As another example, a first node may be configured to communicate with a second node or a third node. In one aspect of this example, the first node may be a UE **115**, the second node may be a network entity **105**, and the third node may be a UE **115**. In another aspect of this example, the first node may be a UE **115**, the second node may be a network entity **105**, and the third node may be a network entity **105**. In yet other aspects of this example, the first, second, and third nodes may be different relative to these examples. Similarly, reference to a UE **115**, network entity **105**, apparatus, device, computing system, or the like may include disclosure of the UE **115**, network entity **105**, apparatus, device, computing system, or the like

being a node. For example, disclosure that a UE **115** is configured to receive information from a network entity **105** also discloses that a first node is configured to receive information from a second node.

[0064] In some examples, network entities **105** may communicate with the core network **130**, or with one another, or both. For example, network entities **105** may communicate with the core network **130** via one or more backhaul communication links **120** (e.g., in accordance with an S1, N2, N3, or other interface protocol). In some examples, network entities **105** may communicate with one another via a backhaul communication link **120** (e.g., in accordance with an X2, Xn, or other interface protocol) either directly (e.g., directly between network entities **105**) or indirectly (e.g., via a core network **130**). In some examples, network entities **105** may communicate with one another via a midhaul communication link **162** (e.g., in accordance with a midhaul interface protocol) or a fronthaul communication link **168** (e.g., in accordance with a fronthaul interface protocol), or any combination thereof. The backhaul communication links **120**, midhaul communication links **162**, or fronthaul communication links **168** may be or include one or more wired links (e.g., an electrical link, an optical fiber link), one or more wireless links (e.g., a radio link, a wireless optical link), among other examples or various combinations thereof. A UE **115** may communicate with the core network **130** via a communication link **155**.

[0065] One or more of the network entities **105** described herein may include or may be referred to as a base station **140** (e.g., a base transceiver station, a radio base station, an NR base station, an access point, a radio transceiver, a NodeB, an eNodeB (eNB), a next-generation NodeB or a giga-NodeB (either of which may be referred to as a gNB), a 5G NB, a next-generation eNB (ng-eNB), a Home NodeB, a Home eNodeB, or other suitable terminology). In some examples, a network entity **105** (e.g., a base station **140**) may be implemented in an aggregated (e.g., monolithic, standalone) base station architecture, which may be configured to utilize a protocol stack that is physically or logically integrated within a single network entity **105** (e.g., a single RAN node, such as a base station **140**).

[0066] In some examples, a network entity **105** may be implemented in a disaggregated architecture (e.g., a disaggregated base station architecture, a disaggregated RAN architecture), which may be configured to utilize a protocol stack that is physically or logically distributed among two or more network entities **105**, such as an integrated access backhaul (IAB) network, an open RAN (O-RAN) (e.g., a network configuration sponsored by the O-RAN Alliance), or a virtualized RAN (vRAN) (e.g., a cloud RAN (C-RAN)). For example, a network entity **105** may include one or more of a central unit (CU) **160**, a distributed unit (DU) **165**, a radio unit (RU) **170**, a RAN Intelligent Controller (RIC) **175** (e.g., a Near-Real Time RIC (Near-RT RIC), a Non-Real Time RIC (Non-RT RIC)), a Service Management and Orchestration (SMO) **180** system, or any combination thereof. An RU **170** may also be referred to as a radio head, a smart radio head, a remote radio head (RRH), a remote radio unit (RRU), or a transmission reception point (TRP). One or more components of the network entities **105** in a disaggregated RAN architecture may be co-located, or one or more components of the network entities **105** may be located in distributed locations (e.g., separate physical locations). In some examples, one or more network entities **105** of a disaggregated RAN architecture may be implemented as virtual units (e.g., a virtual CU (VCU), a virtual DU (VDU), a virtual RU (VRU)).

[0067] The split of functionality between a CU **160**, a DU **165**, and an RU **170** is flexible and may support different functionalities depending upon which functions (e.g., network layer functions, protocol layer functions, baseband functions, RF functions, and any combinations thereof) are performed at a CU **160**, a DU **165**, or an RU **170**. For example, a functional split of a protocol stack may be employed between a CU **160** and a DU **165** such that the CU **160** may support one or more layers of the protocol stack and the DU **165** may support one or more different layers of the protocol stack. In some examples, the CU **160** may host upper protocol layer (e.g., layer 3 (L3), layer 2 (L2)) functionality and signaling (e.g., Radio Resource Control (RRC), service data adaption protocol (SDAP), Packet Data Convergence Protocol (PDCP)). The CU **160** may be connected to one or more DUs **165** or RUs **170**, and the one or more DUs **165** or RUs **170** may host lower protocol layers, such as layer 1 (L1) (e.g., physical (PHY) layer) or L2 (e.g., radio link control (RLC) layer, medium access control (MAC) layer) functionality and signaling, and may each be at least partially controlled by the CU **160**. Additionally, or alternatively, a functional split of the protocol stack may be employed between a DU **165** and an RU **170** such that the DU **165** may support one or more layers of the protocol stack and the RU **170** may support one or more different layers of the protocol stack. The DU **165** may support one or multiple different cells (e.g., via one or more RUs **170**). In some cases, a functional split between a CU **160** and a DU **165**, or between a DU **165** and an RU **170** may be within a protocol layer (e.g., some functions for a protocol layer may be performed by one of a CU **160**, a DU **165**, or an RU **170**, while other functions of the protocol layer are performed by a different one of the CU **160**, the DU **165**, or the RU **170**). A CU **160** may be functionally split further into CU control plane (CU-CP) and CU user plane (CU-UP) functions. A CU **160** may be connected to one or more DUs **165** via a midhaul communication link **162** (e.g., F1, F1-c, F1-u), and a DU **165** may be connected to one or more RUs **170** via a fronthaul communication link **168** (e.g., open fronthaul (FH) interface). In some examples, a midhaul communication link **162** or a fronthaul communication link **168** may be implemented in accordance with an interface (e.g., a channel) between layers of a protocol stack supported by respective network entities **105** that are in communication via such communication links.

[0068] In wireless communications systems (e.g., wireless communications system **100**), infrastructure and spectral resources for radio access may support wireless backhaul link capabilities to supplement wired backhaul connections, providing an IAB network architecture (e.g., to a core network **130**). In some cases, in an IAB network, one or more network entities **105** (e.g., IAB nodes **104**) may be partially controlled by each other. One or more IAB nodes **104** may be referred to as a donor entity or an IAB donor. One or more DUs **165** or one or more RUs **170** may be partially controlled by one or more CUs **160** associated with a donor network entity **105** (e.g., a donor base station **140**). The one or more donor network entities **105** (e.g., IAB donors) may be in communication with one or more additional network entities **105** (e.g., IAB nodes **104**) via supported access and backhaul links (e.g., backhaul communi-

cation links **120**). IAB nodes **104** may include an IAB mobile termination (IAB-MT) controlled (e.g., scheduled) by DUs **165** of a coupled IAB donor. An IAB-MT may include an independent set of antennas for relay of communications with UEs **115**, or may share the same antennas (e.g., of an RU **170**) of an IAB node **104** used for access via the DU **165** of the IAB node **104** (e.g., referred to as virtual IAB-MT (vIAB-MT)). In some examples, the IAB nodes **104** may include DUs **165** that support communication links with additional entities (e.g., IAB nodes **104**, UEs **115**) within the relay chain or configuration of the access network (e.g., downstream). In such cases, one or more components of the disaggregated RAN architecture (e.g., one or more IAB nodes **104** or components of IAB nodes **104**) may be configured to operate according to the techniques described herein.

[0069] For instance, an access network (AN) or RAN may include communications between access nodes (e.g., an IAB donor), IAB nodes **104**, and one or more UEs **115**. The IAB donor may facilitate connection between the core network **130** and the AN (e.g., via a wired or wireless connection to the core network **130**). That is, an IAB donor may refer to a RAN node with a wired or wireless connection to core network **130**. The IAB donor may include a CU **160** and at least one DU **165** (e.g., and RU **170**), in which case the CU **160** may communicate with the core network **130** via an interface (e.g., a backhaul link). IAB donor and IAB nodes **104** may communicate via an F1 interface according to a protocol that defines signaling messages (e.g., an F1 AP protocol). Additionally, or alternatively, the CU **160** may communicate with the core network via an interface, which may be an example of a portion of backhaul link, and may communicate with other CUs **160** (e.g., a CU **160** associated with an alternative IAB donor) via an Xn-C interface, which may be an example of a portion of a backhaul link.

[0070] An IAB node **104** may refer to a RAN node that provides IAB functionality (e.g., access for UEs **115**, wireless self-backhauling capabilities). A DU **165** may act as a distributed scheduling node towards child nodes associated with the IAB node **104**, and the LAB-MT may act as a scheduled node towards parent nodes associated with the IAB node **104**. That is, an IAB donor may be referred to as a parent node in communication with one or more child nodes (e.g., an IAB donor may relay transmissions for UEs through one or more other IAB nodes **104**). Additionally, or alternatively, an IAB node **104** may also be referred to as a parent node or a child node to other IAB nodes **104**, depending on the relay chain or configuration of the AN. Therefore, the IAB-MT entity of IAB nodes **104** may provide a Uu interface for a child IAB node **104** to receive signaling from a parent IAB node **104**, and the DU interface (e.g., DUs **165**) may provide a Uu interface for a parent IAB node **104** to signal to a child IAB node **104** or UE **115**.

[0071] For example, IAB node **104** may be referred to as a parent node that supports communications for a child IAB node, or referred to as a child IAB node associated with an IAB donor, or both. The IAB donor may include a CU **160** with a wired or wireless connection (e.g., a backhaul communication link **120**) to the core network **130** and may act as parent node to IAB nodes **104**. For example, the DU **165** of IAB donor may relay transmissions to UEs **115** through IAB nodes **104**, or may directly signal transmissions to a UE **115**, or both. The CU **160** of IAB donor may signal communication link establishment via an F1 interface to IAB nodes **104**, and the IAB nodes **104** may schedule transmissions (e.g., transmissions to the UEs **115** relayed from the IAB donor) through the DUs **165**. That is, data may be relayed to and from IAB nodes **104** via signaling via an NR Uu interface to MT of the IAB node **104**. Communications with IAB node **104** may be scheduled by a DU **165** of IAB donor and communications with IAB node **104** may be scheduled by DU **165** of IAB node **104**.

[0072] In the case of the techniques described herein applied in the context of a disaggregated RAN architecture, one or more components of the disaggregated RAN architecture may be configured to support techniques for prioritizing and handling conflicting read and write commands for passive devices as described herein. For example, some operations described as being performed by a UE **115** or a network entity **105** (e.g., a base station **140**) may additionally, or alternatively, be performed by one or more components of the disaggregated RAN architecture (e.g., IAB nodes **104**, DUs **165**, CUs **160**, RUs **170**, RIC **175**, SMO **180**).

[0073] A UE **115** may include or may be referred to as a mobile device, a wireless device, a remote device, a handheld device, or a subscriber device, or some other suitable terminology, where the "device" may also be referred to as a unit, a station, a terminal, or a client, among other examples. A UE **115** may also include or may be referred to as a personal electronic device such as a cellular phone, a personal digital assistant (PDA), a tablet computer, a laptop computer, or a personal computer. In some examples, a UE **115** may include or be referred to as a wireless local loop (WLL) station, an Internet of Things (IoT) device, an Internet of Everything (IoE) device, or a machine type communications (MTC) device, among other examples, which may be implemented in various objects such as appliances, or vehicles, meters, among other examples.

[0074] The UEs **115** described herein may be able to communicate with various types of devices, such as other UEs **115** that may sometimes act as relays as well as the network entities **105** and the network equipment including macro eNBs or gNBs, small cell eNBs or gNBs, or relay base stations, among other examples, as shown in FIG. **1**.

[0075] The UEs **115** and the network entities **105** may wirelessly communicate with one another via one or more communication links **125** (e.g., an access link) using resources associated with one or more carriers. The term "carrier" may refer to a set of RF spectrum resources having a defined physical layer structure for supporting the communication links **125**. For example, a carrier used for a communication link **125** may include a portion of a RF spectrum band (e.g., a bandwidth part (BWP)) that is operated according to one or more physical layer channels for a given radio access technology (e.g., LTE, LTE-A, LTE-A Pro, NR). Each physical layer channel may carry acquisition signaling (e.g., synchronization signals, system information), control signaling that coordinates operation for the carrier, user data, or other signaling. The wireless communications system **100** may support communication with a UE **115** using carrier aggregation or multi-carrier operation. A UE **115** may be configured with multiple downlink component carriers and one or more uplink component carriers according to a carrier aggregation configuration. Carrier aggregation may be used with both frequency division duplexing (FDD) and time division duplexing (TDD) component carriers. Communication between a network entity

105 and other devices may refer to communication between the devices and any portion (e.g., entity, sub-entity) of a network entity 105. For example, the terms "transmitting," "receiving," or "communicating," when referring to a network entity 105, may refer to any portion of a network entity 105 (e.g., a base station 140, a CU 160, a DU 165, a RU 170) of a RAN communicating with another device (e.g., directly or via one or more other network entities 105).

[0076] In some examples, such as in a carrier aggregation configuration, a carrier may also have acquisition signaling or control signaling that coordinates operations for other carriers. A carrier may be associated with a frequency channel (e.g., an evolved universal mobile telecommunication system terrestrial radio access (E-UTRA) absolute RF channel number (EARFCN)) and may be identified according to a channel raster for discovery by the UEs 115. A carrier may be operated in a standalone mode, in which case initial acquisition and connection may be conducted by the UEs 115 via the carrier, or the carrier may be operated in a non-standalone mode, in which case a connection is anchored using a different carrier (e.g., of the same or a different radio access technology).

[0077] The communication links 125 shown in the wireless communications system 100 may include downlink transmissions (e.g., forward link transmissions) from a network entity 105 to a UE 115, uplink transmissions (e.g., return link transmissions) from a UE 115 to a network entity 105, or both, among other configurations of transmissions. Carriers may carry downlink or uplink communications (e.g., in an FDD mode) or may be configured to carry downlink and uplink communications (e.g., in a TDD mode).

[0078] A carrier may be associated with a particular bandwidth of the RF spectrum and, in some examples, the carrier bandwidth may be referred to as a "system bandwidth" of the carrier or the wireless communications system 100. For example, the carrier bandwidth may be one of a set of bandwidths for carriers of a particular radio access technology (e.g., 1.4, 3, 5, 10, 15, 20, 40, or 80 megahertz (MHz)). Devices of the wireless communications system 100 (e.g., the network entities 105, the UEs 115, or both) may have hardware configurations that support communications using a particular carrier bandwidth or may be configurable to support communications using one of a set of carrier bandwidths. In some examples, the wireless communications system 100 may include network entities 105 or UEs 115 that support concurrent communications using carriers associated with multiple carrier bandwidths. In some examples, each served UE 115 may be configured for operating using portions (e.g., a sub-band, a BWP) or all of a carrier bandwidth.

[0079] Signal waveforms transmitted via a carrier may be made up of multiple subcarriers (e.g., using multi-carrier modulation (MCM) techniques such as orthogonal frequency division multiplexing (OFDM) or discrete Fourier transform spread OFDM (DFT-S-OFDM)). In a system employing MCM techniques, a resource element may refer to resources of one symbol period (e.g., a duration of one modulation symbol) and one subcarrier, in which case the symbol period and subcarrier spacing may be inversely related. The quantity of bits carried by each resource element may depend on the modulation scheme (e.g., the order of the modulation scheme, the coding rate of the modulation scheme, or both), such that a relatively higher quantity of resource elements (e.g., in a transmission duration) and a relatively higher order of a modulation scheme may correspond to a relatively higher rate of communication. A wireless communications resource may refer to a combination of an RF spectrum resource, a time resource, and a spatial resource (e.g., a spatial layer, a beam), and the use of multiple spatial resources may increase the data rate or data integrity for communications with a UE 115.

[0080] One or more numerologies for a carrier may be supported, and a numerology may include a subcarrier spacing (Δf) and a cyclic prefix. A carrier may be divided into one or more BWPs having the same or different numerologies. In some examples, a UE 115 may be configured with multiple BWPs. In some examples, a single BWP for a carrier may be active at a given time and communications for the UE 115 may be restricted to one or more active BWPs.

[0081] The time intervals for the network entities 105 or the UEs 115 may be expressed in multiples of a basic time unit which may, for example, refer to a sampling period of $T_s=1/(\Delta f_{max} \cdot N_f)$ seconds, for which Δf_{max} may represent a supported subcarrier spacing, and N_f may represent a supported discrete Fourier transform (DFT) size. Time intervals of a communications resource may be organized according to radio frames each having a specified duration (e.g., 10 milliseconds (ms)). Each radio frame may be identified by a system frame number (SFN) (e.g., ranging from 0 to 1023).

[0082] Each frame may include multiple consecutively-numbered subframes or slots, and each subframe or slot may have the same duration. In some examples, a frame may be divided (e.g., in the time domain) into subframes, and each subframe may be further divided into a quantity of slots. Alternatively, each frame may include a variable quantity of slots, and the quantity of slots may depend on subcarrier spacing. Each slot may include a quantity of symbol periods (e.g., depending on the length of the cyclic prefix prepended to each symbol period). In some wireless communications systems 100, a slot may further be divided into multiple mini-slots associated with one or more symbols. Excluding the cyclic prefix, each symbol period may be associated with one or more (e.g., N_f) sampling periods. The duration of a symbol period may depend on the subcarrier spacing or frequency band of operation.

[0083] A subframe, a slot, a mini-slot, or a symbol may be the smallest scheduling unit (e.g., in the time domain) of the wireless communications system 100 and may be referred to as a transmission time interval (TTI). In some examples, the TTI duration (e.g., a quantity of symbol periods in a TTI) may be variable. Additionally, or alternatively, the smallest scheduling unit of the wireless communications system 100 may be dynamically selected (e.g., in bursts of shortened TTIs (sTTIs)).

[0084] Physical channels may be multiplexed for communication using a carrier according to various techniques. A physical control channel and a physical data channel may be multiplexed for signaling via a downlink carrier, for example, using one or more of time division multiplexing (TDM) techniques, frequency division multiplexing (FDM) techniques, or hybrid TDM-FDM techniques. A control region (e.g., a control resource set (CORESET)) for a physical control channel may be defined by a set of symbol periods and may extend across the system bandwidth or a subset of the system bandwidth of the carrier. One or more control regions (e.g., CORESETs) may be configured for a

set of the UEs **115**. For example, one or more of the UEs **115** may monitor or search control regions for control information according to one or more search space sets, and each search space set may include one or multiple control channel candidates in one or more aggregation levels arranged in a cascaded manner. An aggregation level for a control channel candidate may refer to an amount of control channel resources (e.g., control channel elements (CCEs)) associated with encoded information for a control information format having a given payload size. Search space sets may include common search space sets configured for sending control information to multiple UEs **115** and UE-specific search space sets for sending control information to a specific UE **115**.

[0085] In some examples, a network entity **105** (e.g., a base station **140**, an RU **170**) may be movable and therefore provide communication coverage for a moving coverage area **110**. In some examples, different coverage areas **110** associated with different technologies may overlap, but the different coverage areas **110** may be supported by the same network entity **105**. In some other examples, the overlapping coverage areas **110** associated with different technologies may be supported by different network entities **105**. The wireless communications system **100** may include, for example, a heterogeneous network in which different types of the network entities **105** provide coverage for various coverage areas **110** using the same or different radio access technologies.

[0086] The wireless communications system **100** may be configured to support ultra-reliable communications or low-latency communications, or various combinations thereof. For example, the wireless communications system **100** may be configured to support ultra-reliable low-latency communications (URLLC). The UEs **115** may be designed to support ultra-reliable, low-latency, or critical functions. Ultra-reliable communications may include private communication or group communication and may be supported by one or more services such as push-to-talk, video, or data. Support for ultra-reliable, low-latency functions may include prioritization of services, and such services may be used for public safety or general commercial applications. The terms ultra-reliable, low-latency, and ultra-reliable low-latency may be used interchangeably herein.

[0087] In some examples, a UE **115** may be configured to support communicating directly with other UEs **115** via a device-to-device (D2D) communication link **135** (e.g., in accordance with a peer-to-peer (P2P), D2D, or sidelink protocol). In some examples, one or more UEs **115** of a group that are performing D2D communications may be within the coverage area **110** of a network entity **105** (e.g., a base station **140**, an RU **170**), which may support aspects of such D2D communications being configured by (e.g., scheduled by) the network entity **105**. In some examples, one or more UEs **115** of such a group may be outside the coverage area **110** of a network entity **105** or may be otherwise unable to or not configured to receive transmissions from a network entity **105**. In some examples, groups of the UEs **115** communicating via D2D communications may support a one-to-many (1:M) system in which each UE **115** transmits to each of the other UEs **115** in the group. In some examples, a network entity **105** may facilitate the scheduling of resources for D2D communications. In some other examples, D2D communications may be carried out between the UEs **115** without an involvement of a network entity **105**.

[0088] In some systems, a D2D communication link **135** may be an example of a communication channel, such as a sidelink communication channel, between vehicles (e.g., UEs **115**). In some examples, vehicles may communicate using vehicle-to-everything (V2X) communications, vehicle-to-vehicle (V2V) communications, or some combination of these. A vehicle may signal information related to traffic conditions, signal scheduling, weather, safety, emergencies, or any other information relevant to a V2X system. In some examples, vehicles in a V2X system may communicate with roadside infrastructure, such as roadside units, or with the network via one or more network nodes (e.g., network entities **105**, base stations **140**, RUs **170**) using vehicle-to-network (V2N) communications, or with both.

[0089] The core network **130** may provide user authentication, access authorization, tracking, Internet Protocol (IP) connectivity, and other access, routing, or mobility functions. The core network **130** may be an evolved packet core (EPC) or 5G core (5GC), which may include at least one control plane entity that manages access and mobility (e.g., a mobility management entity (MME), an access and mobility management function (AMF)) and at least one user plane entity that routes packets or interconnects to external networks (e.g., a serving gateway (S-GW), a Packet Data Network (PDN) gateway (P-GW), or a user plane function (UPF)). The control plane entity may manage non-access stratum (NAS) functions such as mobility, authentication, and bearer management for the UEs **115** served by the network entities **105** (e.g., base stations **140**) associated with the core network **130**. User IP packets may be transferred through the user plane entity, which may provide IP address allocation as well as other functions. The user plane entity may be connected to IP services **150** for one or more network operators. The IP services **150** may include access to the Internet, Intranet(s), an IP Multimedia Subsystem (IMS), or a Packet-Switched Streaming Service.

[0090] The wireless communications system **100** may operate using one or more frequency bands, which may be in the range of 300 megahertz (MHz) to 300 gigahertz (GHz). Generally, the region from 300 MHz to 3 GHz is known as the ultra-high frequency (UHF) region or decimeter band because the wavelengths range from approximately one decimeter to one meter in length. UHF waves may be blocked or redirected by buildings and environmental features, which may be referred to as clusters, but the waves may penetrate structures sufficiently for a macro cell to provide service to the UEs **115** located indoors. Communications using UHF waves may be associated with smaller antennas and shorter ranges (e.g., less than 100 kilometers) compared to communications using the smaller frequencies and longer waves of the high frequency (HF) or very high frequency (VHF) portion of the spectrum below 300 MHz.

[0091] The wireless communications system **100** may utilize both licensed and unlicensed RF spectrum bands. For example, the wireless communications system **100** may employ License Assisted Access (LAA), LTE-Unlicensed (LTE-U) radio access technology, or NR technology using an unlicensed band such as the 5 GHz industrial, scientific, and medical (ISM) band. While operating using unlicensed RF spectrum bands, devices such as the network entities **105** and the UEs **115** may employ carrier sensing for collision

detection and avoidance. In some examples, operations using unlicensed bands may be based on a carrier aggregation configuration in conjunction with component carriers operating using a licensed band (e.g., LAA). Operations using unlicensed spectrum may include downlink transmissions, uplink transmissions, P2P transmissions, or D2D transmissions, among other examples.

[0092] A network entity **105** (e.g., a base station **140**, an RU **170**) or a UE **115** may be equipped with multiple antennas, which may be used to employ techniques such as transmit diversity, receive diversity, multiple-input multiple-output (MIMO) communications, or beamforming. The antennas of a network entity **105** or a UE **115** may be located within one or more antenna arrays or antenna panels, which may support MIMO operations or transmit or receive beamforming. For example, one or more base station antennas or antenna arrays may be co-located at an antenna assembly, such as an antenna tower. In some examples, antennas or antenna arrays associated with a network entity **105** may be located at diverse geographic locations. A network entity **105** may include an antenna array with a set of rows and columns of antenna ports that the network entity **105** may use to support beamforming of communications with a UE **115**. Likewise, a UE **115** may include one or more antenna arrays that may support various MIMO or beamforming operations. Additionally, or alternatively, an antenna panel may support RF beamforming for a signal transmitted via an antenna port.

[0093] The network entities **105** or the UEs **115** may use MIMO communications to exploit multipath signal propagation and increase spectral efficiency by transmitting or receiving multiple signals via different spatial layers. Such techniques may be referred to as spatial multiplexing. The multiple signals may, for example, be transmitted by the transmitting device via different antennas or different combinations of antennas. Likewise, the multiple signals may be received by the receiving device via different antennas or different combinations of antennas. Each of the multiple signals may be referred to as a separate spatial stream and may carry information associated with the same data stream (e.g., the same codeword) or different data streams (e.g., different codewords). Different spatial layers may be associated with different antenna ports used for channel measurement and reporting. MIMO techniques include single-user MIMO (SU-MIMO), for which multiple spatial layers are transmitted to the same receiving device, and multiple-user MIMO (MU-MIMO), for which multiple spatial layers are transmitted to multiple devices.

[0094] Beamforming, which may also be referred to as spatial filtering, directional transmission, or directional reception, is a signal processing technique that may be used at a transmitting device or a receiving device (e.g., a network entity **105**, a UE **115**) to shape or steer an antenna beam (e.g., a transmit beam, a receive beam) along a spatial path between the transmitting device and the receiving device. Beamforming may be achieved by combining the signals communicated via antenna elements of an antenna array such that some signals propagating along particular orientations with respect to an antenna array experience constructive interference while others experience destructive interference. The adjustment of signals communicated via the antenna elements may include a transmitting device or a receiving device applying amplitude offsets, phase offsets, or both to signals carried via the antenna elements associated with the device. The adjustments associated with each of the antenna elements may be defined by a beamforming weight set associated with a particular orientation (e.g., with respect to the antenna array of the transmitting device or receiving device, or with respect to some other orientation).

[0095] A network entity **105** or a UE **115** may use beam sweeping techniques as part of beamforming operations. For example, a network entity **105** (e.g., a base station **140**, an RU **170**) may use multiple antennas or antenna arrays (e.g., antenna panels) to conduct beamforming operations for directional communications with a UE **115**. Some signals (e.g., synchronization signals, reference signals, beam selection signals, or other control signals) may be transmitted by a network entity **105** multiple times along different directions. For example, the network entity **105** may transmit a signal according to different beamforming weight sets associated with different directions of transmission. Transmissions along different beam directions may be used to identify (e.g., by a transmitting device, such as a network entity **105**, or by a receiving device, such as a UE **115**) a beam direction for later transmission or reception by the network entity **105**.

[0096] Some signals, such as data signals associated with a particular receiving device, may be transmitted by transmitting device (e.g., a transmitting network entity **105**, a transmitting UE **115**) along a single beam direction (e.g., a direction associated with the receiving device, such as a receiving network entity **105** or a receiving UE **115**). In some examples, the beam direction associated with transmissions along a single beam direction may be determined based on a signal that was transmitted along one or more beam directions. For example, a UE **115** may receive one or more of the signals transmitted by the network entity **105** along different directions and may report to the network entity **105** an indication of the signal that the UE **115** received with a highest signal quality or an otherwise acceptable signal quality.

[0097] In some examples, transmissions by a device (e.g., by a network entity **105** or a UE **115**) may be performed using multiple beam directions, and the device may use a combination of digital precoding or beamforming to generate a combined beam for transmission (e.g., from a network entity **105** to a UE **115**). The UE **115** may report feedback that indicates precoding weights for one or more beam directions, and the feedback may correspond to a configured set of beams across a system bandwidth or one or more sub-bands. The network entity **105** may transmit a reference signal (e.g., a cell-specific reference signal (CRS), a channel state information reference signal (CSI-RS)), which may be precoded or unprecoded. The UE **115** may provide feedback for beam selection, which may be a precoding matrix indicator (PMI) or codebook-based feedback (e.g., a multi-panel type codebook, a linear combination type codebook, a port selection type codebook). Although these techniques are described with reference to signals transmitted along one or more directions by a network entity **105** (e.g., a base station **140**, an RU **170**), a UE **115** may employ similar techniques for transmitting signals multiple times along different directions (e.g., for identifying a beam direction for subsequent transmission or reception by the UE **115**) or for transmitting a signal along a single direction (e.g., for transmitting data to a receiving device).

[0098] A receiving device (e.g., a UE **115**) may perform reception operations in accordance with multiple receive configurations (e.g., directional listening) when receiving

various signals from a receiving device (e.g., a network entity **105**), such as synchronization signals, reference signals, beam selection signals, or other control signals. For example, a receiving device may perform reception in accordance with multiple receive directions by receiving via different antenna subarrays, by processing received signals according to different antenna subarrays, by receiving according to different receive beamforming weight sets (e.g., different directional listening weight sets) applied to signals received at multiple antenna elements of an antenna array, or by processing received signals according to different receive beamforming weight sets applied to signals received at multiple antenna elements of an antenna array, any of which may be referred to as "listening" according to different receive configurations or receive directions. In some examples, a receiving device may use a single receive configuration to receive along a single beam direction (e.g., when receiving a data signal). The single receive configuration may be aligned along a beam direction determined based on listening according to different receive configuration directions (e.g., a beam direction determined to have a highest signal strength, highest signal-to-noise ratio (SNR), or otherwise acceptable signal quality based on listening according to multiple beam directions).

[0099] The wireless communications system **100** may be a packet-based network that operates according to a layered protocol stack. In the user plane, communications at the bearer or PDCP layer may be IP-based. An RLC layer may perform packet segmentation and reassembly to communicate via logical channels. A MAC layer may perform priority handling and multiplexing of logical channels into transport channels. The MAC layer also may implement error detection techniques, error correction techniques, or both to support retransmissions to improve link efficiency. In the control plane, an RRC layer may provide establishment, configuration, and maintenance of an RRC connection between a UE **115** and a network entity **105** or a core network **130** supporting radio bearers for user plane data. A PHY layer may map transport channels to physical channels.

[0100] The UEs **115** and the network entities **105** may support retransmissions of data to increase the likelihood that data is received successfully. Hybrid automatic repeat request (HARQ) feedback is one technique for increasing the likelihood that data is received correctly via a communication link (e.g., a communication link **125**, a D2D communication link **135**). HARQ may include a combination of error detection (e.g., using a cyclic redundancy check (CRC)), forward error correction (FEC), and retransmission (e.g., automatic repeat request (ARQ)). HARQ may improve throughput at the MAC layer in poor radio conditions (e.g., low signal-to-noise conditions). In some examples, a device may support same-slot HARQ feedback, in which case the device may provide HARQ feedback in a specific slot for data received via a previous symbol in the slot. In some other examples, the device may provide HARQ feedback in a subsequent slot, or according to some other time interval.

[0101] In some implementations, the wireless communications system **100** may include one or more passive devices. Passive devices may include, but are not limited to, RFID tags, passive IoT devices, hybrid devices including passive and active components, passive components of otherwise active/querying devices (e.g., passive components of a UE **115**), or any combination thereof. For example, in some implementations, a UE **115** of the wireless communications system **100** may serve as a passive device.

[0102] In some aspects, the wireless communications system **100** may support signaling and other mechanisms used to determine and resolve relative priorities for writing and reading operations at passive devices. In particular, the wireless communications system **100** may support rules and conditions for determining relative priorities between writing and reading operations to be performed at passive devices, and signaling from passive devices used to indicate a status or relative priority of conflicting read/write operations. Moreover, the wireless communications system **100** may support signaling between passive and querying devices, as well as signaling between multiple querying devices, which may be used to pre-empt operations that are to be performed at a passive device.

[0103] For example, a passive device (e.g., RFID tag, passive IoT device, hybrid device including passive and active components, passive components of an otherwise active device such as a UE **115**) of the wireless communications system **100** may receive multiple queries for performing separate read or write operations, where the separate read or write operations are associated with different priorities. The queries may be received from the same or different querying devices. For instance, the passive device may receive a first query for a first operation (e.g., first read or write operation) from a first UE **115**, and a second query for a second operation (e.g., second read or write operation) from a second UE **115**. Additionally, or alternatively, the passive device may receive separate queries for separate read or write operations from the same UE **115**. The priorities associated with the operations to be performed at the passive device may be explicitly signaled via the queries, determined based on the type of operations to be performed (e.g., write operations may be prioritized over read operations), determined based on identifiers of the querying devices which transmitted the queries, or any combination thereof. In this example, the passive device may transmit a message to the querying device(s) (e.g., UEs **115**) which transmitted the queries to indicate the status of the scheduled read/write operations (e.g., indicate which operation will be performed), and may perform one of the operations in accordance with the respective priorities.

[0104] In some implementations, the wireless communications system **100** may support signaling between devices that may be used to pre-empt performance of read/write operations at a passive device with higher-priority operations. For example, a querying device may transmit a query to a passive device for a read operation, and may subsequently transmit a separate query for the passive device to perform a higher-priority read operation, thereby pre-empting the original read operation. Similarly, techniques described herein may enable communications between querying devices (e.g., between UEs **115**, between the network and UEs **115**) which enables querying devices to request that other querying devices pause or suspend operations at passive devices to allow for the performance of higher-priority operations at the respective passive devices. Additionally, in some aspects, passive devices of the wireless communications system **100** may periodically transmit (e.g., broadcast) messages indicating whether the respective passive devices are busy performing operations, indicating relative priorities of read/write operations scheduled at the respective passive devices, and the like.

[0105] Techniques described herein may enable passive devices, such as RFID tags, passive IoT devices, etc., to determine relative priorities of read and write operations that are to be performed at the passive devices, thereby improving the speed and efficiency with which passive devices are able to perform reading and writing operations. As such, techniques described herein may improve the efficiency and latency of services and applications associated with passive devices within a wireless communications system, such as location tracking services. Moreover, techniques described herein may enable querying devices to quickly and efficiently determine a status of respective passive devices (e.g., whether each passive device is available or busy), thereby facilitating the ability of querying devices to identify passive devices that may be used for wireless communications.

[0106] FIG. **2** illustrates an example of a wireless communications system **200** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. In some examples, aspects of the wireless communications system **200** may implement, or be implemented by, aspects of the wireless communications system **100**. In particular, the wireless communications system **200** may support signaling, configurations, and other mechanisms which enable passive devices to determine a relative priority of read and write operations that are to be performed at the respective passive devices, as described with respect to FIG. **1**.

[0107] The wireless communications system **200** may include a network entity **105**-*a*, a first UE **115**-*a* (e.g., first RF source, RF Source 1), a second UE **115**-*b* (e.g., second RF source, RF Source 2), one or more passive devices **205**, a third UE **115**-*c* (e.g., first reader, Reader 1), and a fourth UE **115**-*d* (e.g., second reader, Reader 2). In some aspects, the passive devices **205** (e.g., passive IoT devices) may include lower-complexity devices (e.g., <100 μW devices), such as RFID tags, passive IoT devices, hybrid devices including passive and active components, passive components of querying/active devices (e.g., passive components of a UE **115**), and the like. For example, the passive devices **205** may include battery-less or limited energy storage (e.g., capacitor) devices capable of wireless communication.

[0108] As it is used herein, the term "passive device" may be used to refer to devices which may utilize passive signaling for performance of transmissions by the passive devices **205**, actively powered radio signals for performance of transmissions by the passive devices **205**, or both. In this regard, passive devices **205** may receive power for performance of transmissions from radio frequency signals received from other devices, from power sources associated with the passive devices **205**, or both, as will be described in further detail herein. Moreover, as it is used herein, the terms "querying device," "reader," "RF source," or any combination thereof, may refer to wireless devices (e.g., UEs **115**, network entities **105**, IAB nodes, etc.) that are configured to communicate with passive devices **205**, such as by transmitting signals (e.g., queries, commands) to passive devices **205**, receiving/reading signals from passive devices **205**, and the like. As such,

[0109] The passive devices **205** may be used to support various services and applications within the wireless communications system **200**, such as identification, tracking, the like. Other use cases that may be supported or facilitated by the passive devices **205** may include power sourcing, security applications, access control or access connectivity management, positioning services, and the like. Passive devices **205** may be capable of communicating over different frequency ranges, such as UHF ranges.

[0110] The UEs **115** may communicate with the network entity **105**-*a* using communication links **210**, which may be examples of NR or LTE links between the respective UEs **115** and the network entity **105**-*a*. In some cases, the communication links **210** may include examples of access links (e.g., Uu links) which may include bi-directional links that enable both uplink and downlink communication. For example, the first UE **115**-*a* may transmit uplink signals, such as uplink control signals or uplink data signals, to one or more components of the first network entity **105**-*a* using the communication link **210**-*a*, and one or more components of the first network entity **105**-*a* may transmit downlink signals, such as downlink control signals or downlink data signals, to the first UE **115**-*a* using the communication link **210**-*a*. Similarly, the second UE **115**-*b* and the network entity **105**-*a* may communicate with one another using a communication link **210**-*b*. Moreover, the third UE **115**-*c*, the fourth UE **115**-*d*, or both, may communicate with the network entity **105**-*a* using communication links **210**. Further, in some aspects, each of the UEs **115** may communicate with one another via communication links, such as sidelink communication links or PC5 links.

[0111] In some aspects, the one or more passive devices **205** may be grouped into sets **220** of passive devices **205**. For example, as shown in FIG. **2**, a first set **220**-*a* of passive devices **205** may include a first passive device **205**-*a*, a second passive device **205**-*b*, and a third passive device **205**-*c*, and a second set **220**-*b* of passive devices **205** may include a fourth passive device **205**-*d* and a fifth passive device **205**-*e*. Passive devices **205** may be grouped into sets **220** of passive devices based on types of passive devices, capabilities, geographical location, type of service/application supported, etc. In some aspects, the first UE **115**-*a*, the second UE **115**-*b*, or both, may communicate with the passive devices **205** via communication links **215**. Communication links **215** may be examples of PC5 links, Uu links, etc. Similarly, the third UE **115**-*c* and the fourth UE **115**-*d* may communicate with the passive devices **205** via communication links **245**-*a* and **245**-*b*, respectively, where the communication links **245** may be examples of PC5 or Uu links.

[0112] In some aspects, the respective wireless devices of the wireless communications system **200** (e.g., network entity **105**-*a*, UEs **115**, passive devices **205**) may communicate with one another via energy harvesting and backscatter communication. For example, the passive devices **205** may support Energy Harvesting Enabled Communication Services (EHECS) in 5GS. The terms "forward communication" and "backscatter communication" may refer to a relative direction of communication between a querying device and a passive device **205**. For example, in the context of backscatter communication, the first UE **115**-*a* (e.g., querying device) may transmit a signal or query to the first passive device **205**-*a* via a forward link of a communication link **215**, and the first passive device **205**-*a* may transmit a backscattered message via a backscatter link of the communication link **215**.

[0113] For the purposes of the present disclosure, the terms "querying device," "active device," and like terms, may be used interchangeably to refer to wireless devices that

are configured to transmit commands or queries to passive devices. Moreover, the terms "querying device," "active device," and like terms, may broadly be used to refer to wireless devices which transmit and/or receive signals from passive devices **205**, and may therefore include "RF sources" and "Readers," or both. In this regard, querying devices may include UEs **115**, network entities **105**, IAB nodes, and the like.

[0114] As noted previously herein, in some implementations, passive devices **205** may include relatively low-complexity devices which may or may not include a power amplifier and/or a battery. In some cases, passive devices **205** may include antennas (e.g., dipole antennas) and other circuitry (e.g., integrated circuit, chip, load) used to facilitate wireless communications. In some aspects, the range over which a passive device **205** can transmit a message (e.g., backscattered signal) may depend on the manner in which the respective passive device **205** is powered. For example, in some cases, a passive device **205** may not include a power source, but may instead receive power from wireless communications received from querying devices and may transmit far-field signals or modulate reflected signals using power absorbed or extracted from signals received from querying devices. In such cases, the range of such passive devices **205** may be limited to less than ten meters.

[0115] In some aspects, passive devices **205** may receive or generate power used for wireless communications and other operations using a rectifier, where a rectifier may include a diode and a capacitor. For example, a passive device **205** may receive a signal from a querying device (e.g., UE **115**, network entity **105**-*a*) via an antenna, where power absorbed from the antenna is directed to a power rectifier. In this example, the power rectifier converts absorbed power from the antenna to rectified power, which may be directed back to the antenna to transmit messages (e.g., transmit backscattered signals). In some cases, a power rectifier may exhibit an energy conservation efficiency of approximately thirty percent.

[0116] Power absorbed via an antenna of a passive device **205** may be directed from the antenna through an amplitude-shift keying (ASK) or phase-shift keying (PSK) modulator to the power rectifier. In order to perform signal modulation within a passive device **205**, an ASK modulator may exhibit two different states. In a first state (e.g., matched load state), an integrated circuit or antenna resistance of the ASK modulator matches backscatter power (e.g., radiation power matches or equals power absorbed by the integrated circuit). Comparatively, in a second state (e.g., unmated load state, or open circuit state), the integrated circuit or antenna resistance of the ASK modulator does not match the backscatter power. The modulation efficiency of an ASK modulator may be defined by Modulation Efficiency=Practical/Idealized Radiation Power.

[0117] The querying devices (e.g., UEs **115**, network entity **105**-*a*) and passive devices **205** may communicate with one another by exchanging unmodulated and modulated signals or waves (e.g., commands). In particular, a querying device may transmit a continuous wave (CW) signal to a passive device **205** to power up the respective passive device **205**, and may transmit modulated commands or packets to instruct the passive device **205** to perform write operations, read operations, or both. Moreover, the passive device **205** may convert absorbed power from CW signals (e.g., power absorbed from unmodulated signals) to transmit a modulated wave or message as a response to a received command.

[0118] For example, FIG. **2** illustrates an interrogator (e.g., reader)-talks-first (ITF) communication procedure between a querying device (e.g., RF source, reader, interrogator) and a passive device **205**. For instance, the first UE **115**-*a* may transmit a signal **225** to the first passive device **205**-*a*. The signal **225** may include CW portions **230** and commands **235**. A first CW portion **230**-*a* may cause the first passive device **205**-*a* to power up (e.g., turn on the passive device **205**-*a*). The first CW portion **230**-*a* may span more than 400 μs. As shown in FIG. **2**, the first CW portion **230**-*a* (e.g., unmodulated portion of signal **225**) may cause a voltage of an integrated circuit of the passive device **205**-*a* (e.g., tag) to increase above a turn-on voltage. Subsequently, the signal **225** may include a command **235**-*a* (≥−20 dBm) that provides information and power to the first passive device **205**-*a*. For example, the command **235**-*a* may instruct the first passive device **205**-*a* to perform a read operation, a write operation, or both. The signal may include a second CW portion **230**-*b* (≥−20 dBm) to maintain a "turn-on" or active state of the first passive device **205**-*a*.

[0119] Continuing with reference to the signal **225** illustrated in FIG. **2**, a third CW portion **230**-*c* (≥−20 dBm) may provide power and a carrier wave for signal modulation to be performed by the first passive device **205**-*a*. For example, in the context of a read operation to be performed by the first passive device **205**-*a*, the first passive device **205**-*a* may utilize the third CW portion **230**-*c* to transmit a response **240** (e.g., backscattered signal) to the third UE **115**-*c*, where the third UE **115**-*c* may perform full-duplex reading for the response **240**. The signal may include a fourth CW portion **230**-*d* (≥−20 dBm) to maintain a "turn-on" or active state of the first passive device **205**-*a*, and a command **235**-*b* (≥−20 dBm) that provides information and power to the first passive device **205**-*a*, as described herein. Subsequently, following the end of the signal **225**, the voltage of the first passive device **205**-*a* may decrease below the turn-on voltage, and the first passive device **205**-*a* may return to an inactive state.

[0120] While FIG. **2** is shown and described as including RF source devices (e.g., UEs **115**-*a*, **115**-*b*) and separate reader devices (e.g., UEs **115**-*c*, **115**-*d*), this is only for illustrative purposes, and is not to be regarded as a limitation of the present disclosure, unless noted otherwise herein. For example, in some cases, the first UE **115**-*a* may serve as an RF source (e.g., power source) that provides a signal/power to a passive device **205**, as well as an interrogator/reader that receives (e.g., "reads") a backscattered signal or response **240** transmitted by a passive device **205**. In other words, in some implementations, the first UE **115**-*a* may serve as both the RF Source 1 and the Reader 1.

[0121] The passive devices **205** of the wireless communications system **200** may be configured to perform various types of operations, including writing operations and reading operations. A writing operation may include one-way signaling from a querying device (e.g., UE **115**-*a*, **115**-*b*) to a passive device **205** to configure or adjust parameters of the passive device **205**. For example, writing operations may be used to change some information at a passive device **205** or adjust parameters or characteristics at a passive device **205**,

such as an identifier associated with the passive device **205**, a type or frequency of measurements performed by the passive device **205**.

[0122] Comparatively, a reading operation may include two-way signaling between a querying device and a passive device **205** in which the querying device transmits a query or message, and receives or "reads" some responsive signaling back from the passive device **205**. For example, in the context of a reading operation, the first UE **115**-*a* may transmit a query to a passive device **205** to request some information from the passive device **205**, and the passive device **205** may return information or data in response (e.g., response **240**, backscattered signal) to the query, such as data, a type of control information, measurements performed by the passive device **205**, a location of the passive device **205**, sensed information, or any combination thereof.

[0123] The response **240** from the passive device(s) **205** may include any type of data or information, and may depend on the type of passive device **205**. Types of data/information that may be included within the response **240** from the passive device(s) **205** may include, but is not limited to, position information associated with the respective passive device **205** (e.g., current position), sensing/metering/measurement information collected or acquired by the passive device **205**, expiry information (e.g., expiry date) of an item or product associated with the passive device **205** (e.g., a passive device **205** associated with a load of grain may indicate expiry information associated with the grain), a type of item or product associated with the passive device **205**, a color of the item or product associated with the passive device **205**, a data buffer size for data to be sent from the passive device **205** (e.g., passive device **205** may indicate how much data it has to send), a memory size of the passive device **205**, tag information, and the like.

[0124] For example, in some cases, a passive device **205** may be configured to perform health-related measurements for a user or patient, including heart beat measurements, blood pressure measurements, temperature measurements, blood oxygenation measurements, and the like. In this example, the response **240** may indicate measurements performed by the passive device **205**, changes in measurements performed by the passive device **205** (e.g., rate of change), alerts when measurements satisfy pre-defined thresholds, and the like.

[0125] However, as noted previously herein, passive devices **205** such as RFID tags, passive IoT devices, etc., may include relatively low-complexity devices with limited resources and processing power. As such, passive devices **205** may be able to perform a limited number of read or write operations at a time. For example, some passive devices **205** may be able to perform a single write operation or a single read operation at any given time. As such, in some wireless communications systems, it may be unclear which operation a passive device **205** is to perform when the respective passive device receives queries or commands to perform different operations. In other words, some wireless communications systems do not provide any signaling or other mechanisms to resolve conflicting (e.g., overlapping) read and write operations at passive devices **205**. As such, upon receiving multiple queries for performing reading and/or writing operations, it may be unclear which reading/writing operation a passive device **205** is expected to perform.

[0126] Accordingly, aspects of the present disclosure are directed to signaling and other mechanisms used to determine and resolve relative priorities for writing and reading operations at passive devices **205**. In particular, aspects of the present disclosure are directed to rules and conditions for determining relative priorities between writing and reading operations to be performed at passive devices **205**, and signaling from passive devices **205** used to indicate a status or relative priority of conflicting read/write operations. Moreover, techniques described herein support signaling between passive devices **205** and querying devices, as well as signaling between multiple querying devices, which may be used to pre-empt operations that are to be performed at a passive device **205**.

[0127] In some implementations, as will be described in further detail herein, passive devices **205** may be configured to prioritize operations (e.g., read operations, write operations) with higher priority levels over operations with lower priority levels. That is, passive devices **205** may be configured to perform higher-priority operations prior to lower-priority operations. Relative priorities of read and write commands may be determined or signaled in accordance with a number of implementations. In particular, read and write commands may be explicitly signaled, determined based on relative priorities between types of read and write commands, determined based on priorities of querying devices initiating the respective read/write operations, determined based on a satisfaction of one or more conditions, or any combination thereof.

[0128] For example, in some cases, querying devices (e.g., UEs **115**, network entity **105**-*a*) may transmit messages or queries initiating read commands, write commands, or both, where the commands/queries indicate a priority level associated with the respective operation. In other words, when writing and/or sending data to passive devices **205** (e.g., RFID tags, passive IoT devices, hybrid devices including passive and active components), each command/query or set of commands may be associated with a respective priority level, which may be explicitly or implicitly indicated via the command/query. Moreover, when reading from passive devices **205**, each data query read from a passive device **205** may be associated with a respective priority level. For example, referring to FIG. **2**, the commands **235**-*a*, **235**-*b* may initiate read operations, write operations, or both, that are to be performed by a passive device **205**, where the commands **235**-*a*, **235**-*b* indicate priority levels associated with the respective operations initiated by the commands **235**.

[0129] In some cases, reading and writing operations may be associated with differing priority levels. For example, in some cases, writing operations may be associated with higher priority levels as compared to reading operations. Writing operations may be given higher priority levels as writing operations used to configure/adjust system parameters at a passive device **205** that will be used for subsequent reading operations. Comparatively, in other implementations, reading operations may be associated with higher priority levels as compared to writing operations.

[0130] In some aspects, priority levels associated with reading and writing operations may vary based on the type of operation to be performed (e.g., type of data to be read or written). For example, Type A reading and/or writing operations may be associated with higher priority levels as compared to Type B reading and/or writing operations. In such cases, commands/queries for read/write operations may indicate the type of operation that is to be performed (e.g.,

Type A, Type B, . . . , Type n), where the passive devices **205** may be configured to determine relative priority levels of the operations based on the corresponding types of operations. Types of operations may be based on a number of factors, including the type of data to be read/written by the respective operations, a service/application supported by the respective operation, etc.

[0131] In some aspects, priority levels associated with operations to be performed at the passive devices **205** may be based on a type of data that is to be processed/returned by the passive device **205** (e.g., operations associated with positioning data may have higher priority levels compared to operations associated with data size on RFID buffer or meta data). Additionally, or alternatively, priority levels associated with operations to be performed at the passive devices **205** may be based on respective applications associated with the operations/measurements to be performed by the passive device **205** (e.g., medical tags performing sensing measurements for patients and may be associated with higher priority levels than other types of operations used for other applications or other contexts).

[0132] In some implementations, a priority level for a given operation (e.g., operation priority, or session priority) may be based on a highest priority level of the associated data (e.g., data type) that is to be processed, retrieved, or returned during the operation/session. For example, the first passive device **205**-*a* may be commanded or queried to perform an operation (e.g., session) that includes reading or writing data of type A, type B, and type C (e.g., commands/information of types A, B, and C), where data type A, data type B, and data type C are associated with different priority levels. In this example, the priority level of the operation/session may include the highest priority level associated with data types A, B, and C. In other words, the highest priority level of data type A, B, or C may determine the operation priority level (session priority level).

[0133] In additional or alternative implementations, operation/session priority levels may be determined independently of priority levels associated with data types. In other words, operations may be associated with a first granularity of priority levels, where data types/information to be performed/returned during the respective operations may be associated with a second granularity of priority levels of QoS parameters. For instance, continuing with the example above, the first passive device **205**-*a* may be commanded or queried to perform an operation (e.g., session) that includes reading or writing data of type A, type B, and type C, where data type A has a higher priority than data types B and C, and data type B has a higher priority than data type C (e.g., A priority>B priority>C priority). In this example, upon determining to prioritize the operation, the first passive device **205**-*a* may then perform/retrieve the data types in accordance with the priority levels of the respective data types. As such, the first passive device **205**-*a* may read or write data type A first, then read/write data type B, then read/write data type C.

[0134] In some aspects, priority levels associated with operations and/or data types to be read/written may be based on other parameters, such as QoS metrics, physical requirements associated with reliability (e.g., a read or write operation is expected to be performed with a certain error rate, BLER requirement, etc.), delay requirements, and the like. For example, higher QOS metrics may be associated with higher priority levels compared to lower QoS metrics. Similarly, operations with lower error rates or lower delay requirements may be associated with higher priority levels as compared to operations with higher error rates or higher delay requirements.

[0135] In additional or alternative implementations, priority levels associated with operations to be performed by a passive device **205** (e.g., read operations, write operations) may be determined based on the querying devices which requested the respective operations to be performed. In this regard, passive devices **205** may determine relative priorities of read/write operations based on identifiers associated with querying devices from which commands/queries are received. For example, operations initiated by the first UE **115**-*a* may be prioritized over (e.g., performed prior to) operations initiated by the second UE **115**-*b*. In other words, read/write operations initiated by the first UE **115**-*a* may be associated with higher priorities as compared to operations imitated by the second UE **115**-*b*. In this regard, commands/queries transmitted by querying devices to initiate operations at passive devices **205** may include identifiers associated with the respective querying devices to enable the passive devices **205** to determine relative priority levels of the initiated operations.

[0136] In some cases, passive devices **205** (e.g., RFID tags, passive IoT devices, hybrid devices including passive and active components) may be configured by a controlling unit (e.g., network entity **105**-*a*, base station, gNB) to follow orders, commands, and queries of certain querying devices (e.g., RF sources, readers, interrogators) over other wireless devices. For example, in some cases, the network entity **105**-*a* may transmit control signaling to the passive devices **205**, where the control signaling instructs the passive devices **205** to prioritize operations initiated by the first UE **115**-*a* over operations initiated by the second UE **115**-*b*.

[0137] Similarly, in some cases, passive devices **205** may be configured with one or more priority configurations which are used to determine relative priorities between different operations, or relative priorities between commands/queries received from querying devices. As it is used herein, the term "priority configurations" may be used to refer to a set of rules, conditions, or other parameters that are used to determine priority levels of operations/queries, and to resolve conflicts between operations. For example, the first passive device **205**-*a* may receive control signaling (e.g., a query or command for a write operation) from the network entity **105**-*a*, the first UE **115**-*a*, or both, where the control signaling indicates a priority configuration usable by the first passive device **205**-*a* for determining priority levels of read and write operations that are to be performed by the first passive device **205**-*a*. In this example, the priority configuration may include conditions or rules for determining priority levels associated with operations and/or queries/commands.

[0138] For instance, the priority configuration may cause the first passive device **205**-*a* to assign or determine higher priority levels associated with write operations as compared to read operations. By way of another example, the priority configuration may cause the first passive device **205**-*a* to assign or determine a higher priority level associated with a first operation initiated by the first UE **115**-*a* as compared to a second operation initiated by the second UE **115**-*b* where the first and second operations are associated with the same operation type. Moreover, the priority configuration may cause the first passive device **205**-*a* to assign or determine

higher priority levels associated with operations initiated by the first UE **115**-*a* unless an operation initiated by the second UE **115**-*b* is associated with an operation type with a higher priority level (e.g., prioritize Type A operations initiated by second UE **115**-*b* over Type B operations initiated by first UE **115**-*a*).

[0139] In some aspects, techniques described herein may enable querying devices to override or pre-empt operations initiated at passive devices **205** with other, higher-priority operations. For example, a querying device (e.g., UE **115**, network entity **105**, gNB, control unit programmable logic controllers (PLCs) in sidelink) may communicate a message to an RF source (or a reader), where the message indicates whether to cancel reading from a passive device **205** or not, or whether to write/read some other information with a different priority level or operation type.

[0140] Stated differently, a querying device (e.g., UE **115**) may initiate a read/write operation at a passive device **205**, and may subsequently override, cancel, or pre-empt the previously-initiated operation with a different (e.g., higher-priority) operation (e.g., the same querying device sends a query/command to an RFID tag for an operation with a higher priority level than a previously initiated operation). Moreover, a first querying device (e.g., first UE **115**-*a*) may initiate a read/write operation at a passive device **205**, and a second querying device (e.g., second UE **115**-*b*) may override or pre-empt the initial operation with a different, higher-priority operation. Pre-emption of reading/writing operations at a passive device **205** may be triggered where a new read operation of some type of data can cancel an old read operation with a different (e.g., lower) priority level.

[0141] Pre-emption of read/write operations by a same querying device will be shown and described in further detail with respect to FIGS. **3** and **4**. Moreover, pre-emption of read/write operations by different querying devices will be shown and described in further detail with respect to FIGS. **3** and **5**.

[0142] Moreover, in order to facilitate timely and efficient performance of higher-priority operations to be performed at the passive devices **205**, the respective wireless devices (e.g., passive devices **205**, UEs **115**, network entity **105**-*a*) may be configured to exchange information regarding initiated operations with one another in order to coordinate or negotiate which operations will be prioritized/performed at the respective passive devices **205**. In particular, querying devices may be configured to request (from passive devices) identifiers associated with other querying devices so that the querying devices can coordinate and/or negotiate with one another regarding which operations will be performed and/or prioritized at the passive device **205**.

[0143] For example, the first UE **115**-*a* may transmit a query to the first passive device **205**-*a* for a read or write operation to be performed at the first passive device **205**-*a*, and the first passive device **205**-*a* may respond with a message indicating that the first passive device **205**-*a* is busy with another, higher-priority operation. In this example, the first UE **115**-*a* may transmit a request to the first passive device **205**-*a* for an identifier of the querying device which initiated the other higher-priority operation. Continuing with the same example, upon receiving the request, the first passive device **205**-*a* may transmit a response message that indicates the second UE **115**-*b* is the querying device that initiated the other, higher-priority operation. Subsequently, upon receiving the identifier of the second UE **115**-*b*, the first UE **115**-*a* may communicate with the second UE **115**-*b* to coordinate or negotiate which operation will be prioritized/performed at the first passive device **205**-*a*. For instance, the first UE **115**-*a* may request information associated with a priority level for the operation initiated by the second UE **115**-*b*, indicate a priority level of the operation that is to be initiated by the first UE **115**-*a*, request that the second UE **115**-*b* stop or postpone the operation previously initiated by the second UE **115**-*b*, or any combination thereof.

[0144] In additional or alternative implementations, information indicating querying devices which have initiated operations at passive devices may be communicated through a control unit (e.g., PLC in sidelink), or other centralized unit, such as the network entity **105**-*a*. For example, the first UE **115**-*a* may transmit a query to the first passive device **205**-*a* for a read or write operation to be performed at the first passive device **205**-*a*, and the first passive device **205**-*a* may respond with a message indicating that the first passive device **205**-*a* is busy with another, higher-priority operation. In this example, the first UE **115**-*a* may transmit a request to the first passive device **205**-*a* for an identifier of the querying device which initiated the other higher-priority operation. Continuing with the same example, upon receiving the request, the first passive device **205**-*a* may transmit a response message to the network entity **105**-*a*, where the response message indicates the second UE **115**-*b* is the querying device that initiated the other, higher-priority operation. The response message may additionally indicate priority levels of the respective operations initiated by the first UE **115**-*a* and the second UE **115**-*b*. In this example, the network entity **105**-*a* may relay the response message to the first UE **115**-*a* and/or transmit a message to the second UE **115**-*b* requesting that the second UE **115**-*b* stop or postpone the operation previously initiated by the second UE **115**-*b*. In this regard, in some implementations, the network entity **105**-*a* (or other control/centralized unit) may receive information associated with different operations to be performed at a passive device **205**, and may coordinate or otherwise determine which operations should be given higher priority, and may instruct querying devices to stop, postpone, or re-initiate operations accordingly.

[0145] In some aspects, passive devices **205** of the wireless communications system **200** may be configured to backscatter signals to querying devices (e.g., UEs **115**, network entity **105**), where the backscattered signals indicate a status of the respective passive devices **205**. That is, a passive device **205** may transmit or broadcast messages indicating whether the respective passive device **205** is booked, whether the passive device **205** is being read by another querying device (e.g., another RF source/reader), and the like. In this regard, passive devices **205** may transmit or broadcast messages associated with a queue of operations to be performed by the respective passive devices **205** to inform querying devices as to whether or not the respective passive devices **205** are busy or not (e.g., whether they are booked or not).

[0146] For the purposes of the present disclosure, the term "status message" may be used to refer to signals or messages transmitted/broadcast by passive devices **205** which indicate whether the respective passive devices **205** are busy/booked or not. In other words, status messages may communicate information associated with the status of the passive device **205** (e.g., whether the passive device **205** is available or

busy/booked), information associated with a queue of operations to be performed by the passive device **205**, and the like. Status messages may indicate a quantity of operations in a queue of operations that are to be performed by the passive device **205**, types of operations in the queue, priority levels of operations in the queue, identifiers of querying devices that initiated the operations (e.g., ID of RF source, ID of reader), whether the respective operations in the queue have the same device for an RF source/reader or different devices for the RF source and reader, or any combination thereof.

[0147] In some cases, status messages indicating a status or queue of a passive device **205** may be transmitted periodically, aperiodically, etc. For example, the first passive device **205**-*a* may transmit status messages associated with a queue of operations to be performed by the first passive device **205**-*a* according to aperiodicity. In this example, the periodicity may be pre-configured at the first passive device **205**-*a*, signaled to the first passive device **205**-*a* (e.g., via a write query/command), or both.

[0148] The mechanism in which passive devices **205** transmit status messages associated with a status/queue of the respective passive devices **205** may be based on whether or not the respective passive device **205** includes a separate power source. In particular, passive devices **205** that include a separate power source may be able to transmit status messages associated with a status/queue of operations on their own (e.g., without receiving signals/power from a querying device). In other words, in this example, the first passive device **205**-*a* may include a power source and/or an active or semi-active RF component that is capable of transmitting signals and generating waveforms independently (without backscattering). Comparatively, passive devices **205** that that do not include a separate power source may receive signals/power from querying devices (e.g., UEs **115**, network entity **105**-*a*, centralized unit, RF emitter) to enable the passive devices **205** to transmit status messages.

[0149] For example, in cases where the first passive device **205**-*a* includes a power source, the first passive device **205**-*a* may autonomously transmit/broadcast status messages associated with a status/queue of the first passive device **205**-*a* to inform neighboring querying devices as to the availability of the first passive device **205**-*a*. By way of another example, the second passive device **205**-*b* may not include a power source. In this example, the first UE **115**-*a* and/or the second UE **115**-*b* (RF Sources) may transmit RF source signals periodically or aperiodically to provide the second passive device **205**-*b* with power that may be used to transmit (e.g., backscatter) status messages associated with a status/queue of the second passive device **205**-*b*.

[0150] Techniques described herein may enable passive devices **205**, such as RFID tags, to determine relative priorities of read and write operations that are to be performed at the passive devices **205**, thereby improving the speed and efficiency with which passive devices **205** are able to perform reading and writing operations. As such, techniques described herein may improve the efficiency and latency of services and applications associated with passive devices **205** within the wireless communications system **200**, such as location tracking services. Moreover, techniques described herein may enable querying devices (e.g., UEs **115**, network entity **105**-*a*) to quickly and efficiently determine a status of respective passive devices **205** (e.g., whether each passive device **205** is available or busy), thereby facilitating the ability of querying devices to identify passive devices **205** that may be used for wireless communications.

[0151] FIG. **3** illustrates an example of a resource configuration **300** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. In some examples, aspects of the resource configuration **300** may implement, or be implemented by, aspects of the wireless communications system **100**, the wireless communications system **200**, or both. In particular, the resource configuration **300** illustrates signaling between a passive device and RF sources that enables the passive device to determine and signal a relative priority between read and write operations, as described with reference to FIGS. **1**-**2**, among other aspects.

[0152] The resource configuration **300** illustrates communications between a passive device (e.g., passive device **205** illustrated in FIG. **2**) and one or more querying devices **305** within a set of transmission time intervals (TTIs) (e.g., slots, sets of slots). In particular, the resource configuration **300** illustrates communications between a first querying device **305**-*a*, a second querying device **305**-*b*, and a passive device.

[0153] At **310**, the first querying device **305**-*a* may transmit a query or command to start or initiate a first operation (e.g., first read operation, first write operation) at the passive device, where the first operation is associated with a first priority level (Priority 1). For example, the first querying device **305**-*a* may transmit a CW portion **230** of a query to power-up the passive device, as shown in FIG. **2**. As described previously herein, the priority level of the first operation may be explicitly or implicitly signaled via the query at **310**, and/or determined based on the type of operation, a priority or identifier associated with the first querying device **305**-*a*, based on a priority configuration, or any combination thereof. At **315**, the first querying device **305**-*a* transmits a query or command for the first operation. For example, the first querying device may transmit a command **235**-*a* for the first operation, as shown in FIG. **2**.

[0154] At **320**, the second querying device **305**-*b* may transmit a query or command to start or initiate a second operation (e.g., second read operation, second write operation) at the passive device, where the second operation is associated with a second priority level (Priority 2) that is less than the first priority level (e.g., Priority 2<Priority 1). For example, the second querying device **305**-*b* may transmit a CW portion **230** of a query to power-up the passive device, as shown in FIG. **2**. As described previously herein, the priority level of the second operation may be explicitly or implicitly signaled via the query at **320**, and/or determined based on the type of operation, a priority or identifier associated with the second querying device **305**-*b*, based on a priority configuration, or any combination thereof.

[0155] At **325**, the passive device may transmit a response message to the second querying device **305**-*b*, where the response message indicates that the passive device is busy communicating with another reader/querying device for an operation/session with a higher priority. In other words, the passive device may indicate, to the second querying device **305**-*b*, that the passive device is prioritizing the first operation initiated by the first querying device **305**-*a* over the second operation initiated by the second querying device **305**-*b*.

[0156] At **330**, **335**, **340**, or any combination thereof, the passive device may perform the first operation. For example, in the context of a write operation, the passive device may configure or modify one or more operational parameters of the passive device. Comparatively, in the context of a reading operation, the passive device may transmit signals to the first querying device **305**-*a* (or a related reader device), where the signals indicate measurements performed by the passive device, a location of the passive device, and the like.

[0157] The signaling and operations shown and described in FIG. **3** may be further understood with reference to FIGS. **4** and **5**.

[0158] FIG. **4** illustrates an example of a process flow **400** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. In some examples, aspects of the process flow **400** may implement, or be implemented by, aspects of the wireless communications system **100**, the wireless communications system **200**, the resource configuration **300**, or any combination thereof. In particular, the process flow **400** illustrates signaling between a querying device and a passive device that enables the querying device to pre-empt a previously initiated read/write operation with a higher-priority operation, as described with reference to FIGS. **1**-**3**, among other aspects.

[0159] The process flow **400** may include a passive device **405** and a querying device **410**, which may be examples of passive devices, UEs **115**, network entities **105**, and other wireless devices described with reference to FIGS. **1**-**3**. For example, the passive device **405** may include an example of an RFID tag or a passive component of a querying device, as shown and described in FIG. **2**. Similarly, the querying device **410** may include an example of the network entity **105**-*a*, a UE **115**, or both, as shown and described in FIG. **2**.

[0160] In some examples, the operations illustrated in process flow **400** may be performed by hardware (e.g., including circuitry, processing blocks, logic components, and other components), code (e.g., software) executed by a processor, or any combination thereof. Alternative examples of the following may be implemented, where some steps are performed in a different order than described or are not performed at all. In some cases, steps may include additional features not mentioned below, or further steps may be added.

[0161] At **415**, the passive device **405** may transmit or broadcast a message indicating information associated with a status or queue of operations to be performed at the passive device **405**. In other words, the passive device **405** may transmit a message indicating whether the passive device **405** is available, or whether the passive device is booked/busy. In some cases, passive device **405** may transmit the message at **405** in accordance with some periodicity, where the periodicity may be pre-configured, signaled to the passive device **405** (e.g., via a write operation), or both. Moreover, in some cases, the passive device **405** may transmit the message at **415** based on receiving some RF signal (e.g., from the querying device **410** or other device, such as a network entity **105**) that provides power for the passive device **405** to transmit the signal.

[0162] At **420**, the querying device **410** may transmit, to the passive device **405**, a signal or message to start a first operation (Operation 1) at the passive device **405**. The first operation may include a read operation or a write operation that is to be performed by the passive device, where the first operation is associated with a second priority level (Priority 2). For example, the querying device **410** may transmit a CW portion **230** of a query to power-up the passive device, as shown in FIG. **2**. As described previously herein, the priority level of the first operation may be explicitly or implicitly signaled via the message at **420**, and/or determined based on the type of operation, a priority or identifier associated with the querying device **410**, based on a priority configuration, or any combination thereof. In some aspects, the querying device **410** may transmit the message at **420** based on receiving the message associated with the status/queue of the passive device **405** at **415**.

[0163] At **425**, the querying device **410** may transmit a query or command for the first operation. For example, the querying device **410** may transmit a command **235**-*a* for the first operation, as shown in FIG. **2**. As such, the querying device **410** may transmit the query at **425** based on transmitting the message to initiate the first operation at **420**. In some aspects, the query at **420** may indicate an operation type associated with the first operation, the priority level associated with the first operation, or both.

[0164] At **430**, the querying device **410** may transmit a message (e.g., query, command) for the passive device **405** to perform a second operation (Operation 2) with a higher priority (Priority 1) as compared to the first operation (e.g., Priority 1>Priority 2). In other words, the querying device **410** may instruct the passive device to stop the current session (e.g., stop or refrain from performing the first operation) in order to start a new read/write operation (e.g., Operation 2). Accordingly, the querying device **410** may effectively pre-empt the original, first operation in lieu of the second operation with the higher priority.

[0165] In cases where the passive device **405** prioritizes the second operation over the first operation, the passive device **405** may add the first operation (Operation 1) to a queue of operations to be performed by the passive device **405**. In this regard, Operation 1 may be stored in a queue or memory so that the passive device **405** may perform Operation 1 after Operation 2 is completed.

[0166] At **435**, the passive device **405** may perform the second operation (Operation 2). For example, in the context of a write operation, the passive device **405** may configure or modify one or more operational parameters of the passive device **405**. Comparatively, in the context of a reading operation, the passive device **405** may transmit signals to the querying device **410** (or a related reader device), where the signals indicate measurements performed by the passive device **405**, a location of the passive device **405**, and the like.

[0167] In cases where the passive device **405** prioritizes Operation 2 over Operation 1, the passive device **405** may add Operation 1 to a queue of operations to be performed by the passive device **405**. In this regard, Operation 1 may be stored in a queue or memory so that the passive device **405** may perform Operation 1 after Operation 2 is completed.

[0168] Techniques described herein may enable querying devices to pre-empt or override previous operations initiated at the passive device **405**. In particular, as shown in FIG. **4**, techniques described herein may enable the querying device **410** to pre-empt another operation that was previously initiated at the passive device **405** by the querying device **410**.

[0169] FIG. **5** illustrates an example of a process flow **500** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in

accordance with one or more aspects of the present disclosure. In some examples, aspects of the process flow **500** may implement, or be implemented by, aspects of the wireless communications system **100**, the wireless communications system **200**, the resource configuration **300**, or any combination thereof. In particular, the process flow **500** illustrates signaling between querying devices and a passive device that enables a querying device to pre-empt a read/write operation that was previously initiated by another querying device with a higher-priority operation, as described with reference to FIGS. **1-4**, among other aspects.

[0170] The process flow **500** may include a passive device **505**, a first querying device **510**-*a*, and a second querying device **510**-*b*, which may be examples of passive devices, UEs **115**, network entities **105**, and other wireless devices described with reference to FIGS. **1-4**. For example, the passive device **505** may include an example of an RFID tag or a passive component of a querying device, as shown and described in FIG. **2**. Additionally, the first querying device **510**-*a* may include an example of the first UE **115**-*a*, the third UE **115**-*c*, or both, as shown and described in FIG. **2**. Similarly, the second querying device **510**-*b* may include an example of the second UE **115**-*b*, the fourth UE **115**-*d*, or both, as shown and described in FIG. **2**.

[0171] In some examples, the operations illustrated in process flow **500** may be performed by hardware (e.g., including circuitry, processing blocks, logic components, and other components), code (e.g., software) executed by a processor, or any combination thereof. Alternative examples of the following may be implemented, where some steps are performed in a different order than described or are not performed at all. In some cases, steps may include additional features not mentioned below, or further steps may be added.

[0172] At **515**, the passive device **505** may transmit or broadcast, to the first querying device **510**-*a*, the second querying device **510**-*b*, or both, a message indicating information associated with a status or queue of operations to be performed at the passive device **505**. In other words, the passive device **505** may transmit a message indicating whether the passive device **505** is available, or whether the passive device is booked/busy. In some cases, passive device **405** may transmit the message at **505** in accordance with some periodicity, where the periodicity may be pre-configured, signaled to the passive device **505** (e.g., via a write operation), or both. Moreover, in some cases, the passive device **505** may transmit the message at **515** based on receiving some RF signal (e.g., from the first querying device **510**-*a*, second querying device **510**-*b*, or other device, such as a network entity **105**) that provides power for the passive device **505** to transmit the signal.

[0173] At **520**, the first querying device **510**-*a* may transmit, to the passive device **505**, a signal or message to start a first operation (Operation 1) at the passive device **505**. The first operation may include a read operation or a write operation that is to be performed by the passive device **505**, where the first operation is associated with a first priority level (Priority 1). For example, the first querying device **510**-*a* may transmit a CW portion **230** of a query to power-up the passive device, as shown in FIG. **2**. As described previously herein, the priority level of the first operation may be explicitly or implicitly signaled via the message at **520**, and/or determined based on the type of operation, a priority or identifier associated with the first querying device **510**-*a*, based on a priority configuration, or any combination thereof. In some aspects, the first querying device **510**-*a* may transmit the message at **520** based on receiving the message associated with the status/queue of the passive device **505** at **515**.

[0174] At **525**, the first querying device **510**-*a* may transmit a query or command for the first operation. For example, the first querying device **510**-*a* may transmit a command **235**-*a* for the first operation, as shown in FIG. **2**. As such, the first querying device **510**-*a* may transmit the query at **520** based on transmitting the message to initiate the first operation at **520**, and/or receiving the message associated with the status/queue of the passive device **505** at **515**. In some aspects, the query at **525** may indicate an operation type associated with the first operation (e.g., Type A), the priority level associated with the first operation, or both.

[0175] At **530**, the second querying device **510**-*b* may transmit a message (e.g., query, command) for the passive device **505** to perform a second operation (Operation 2) with a lower priority (Priority 2) as compared to the first operation (e.g., Priority 1>Priority 2). In other words, the second querying device **510**-*b* may attempt to pre-empt the first operation at the passive device **505** by transmitting the query for the second operation. However, in some implementations, the passive device **505** may be configured to prioritize higher-priority operations over lower-priority operations, and may therefore prioritize Operation 1 over Operation 2 (e.g., perform Operation 1 prior to Operation 2). In some aspects, the second querying device **510**-*b* may transmit the message at **530** based on receiving the message associated with the status/queue of the passive device **505** at **515**.

[0176] At **535**, the passive device **505** may transmit a response message to the second querying device **510**-*b*, where the response message indicates that the passive device **505** is busy communicating with another reader/querying device for an operation/session with a higher priority. In other words, the passive device **505** may indicate, to the second querying device **510**-*b*, that the passive device **505** is prioritizing Operation 1 initiated by the first querying device **510**-*a* over Operation 2 initiated by the second querying device **510**-*b*. In some implementations, the passive device **505** may transmit the response message to both the first and second querying devise **510** so that the querying devices **510** can predict or expect the behavior of the passive device **505**.

[0177] In cases where the passive device **505** prioritizes Operation 1 over Operation 2, the passive device **505** may add Operation 2 to a queue of operations to be performed by the passive device **505**. In this regard, Operation 2 may be stored in a queue or memory so that the passive device **505** may perform Operation 2 after Operation 1 is completed.

[0178] At **540**, the second querying device **510**-*b* may transmit a message (e.g., query, command) for the passive device **505** to perform a third operation (Operation 3). In some aspects, the third operation may be associated with an operation type (Type 3) that has a higher priority than other operation types. In other words, operations associated with Type B may have higher priority levels than operations associated with Type A. In this regard, Operation 3 may have a higher priority level as compared to both Operation 1 and Operation 1 (e.g., $\text{Priority}_{Op\ 3} > \text{Priority}_{Ops\ 1\ and\ 2}$. Accordingly, the passive device **505** may be configured to prioritize Operation 3 over Operations 1 and 2. Thus, the second querying device **505**-*b* may effectively pre-empt Operation 1 that was previously initiated by the first querying device **510**-*a*.

[0179] At **545**, the passive device **505** may transmit a message to the first querying device **510**-*a*, where the message indicates that the passive device **505** will stop performing (or refrain from performing) the first operation due to the fact that the passive device **505** received a query for a higher-priority operation. In other words, the passive device **505** may indicate that Operation 1 has been pre-empted with a higher-priority operation. In some cases, the passive device **505** may additionally transmit the message at **545** to the second querying device **510**-*b* to indicate that the passive device **505** will prioritize Operation 3.

[0180] In cases where the passive device **505** prioritizes Operation 3 over Operation 1 (and Operation 2), the passive device **505** may add Operation 1 to a queue of operations to be performed by the passive device **505**. Moreover, Operation 1 may be added to the queue ahead of Operation 2 due to the fact that Operation 1 is associated with a higher priority compared to Operation 2. In this regard, Operation 1 may be stored in a queue or memory so that the passive device **505** may perform Operation 1 after Operation 2 is completed.

[0181] At **550**, the second querying device **510**-*b* may transmit a query or command for the third operation. For example, the second querying device **510**-*b* may transmit a command **235**-*a* for the first operation, as shown in FIG. **2**. As such, the second querying device **510**-*b* may transmit the query at **550** based on transmitting the message to initiate the third operation at **540**, receiving the response message at **545**, or both. In some aspects, the query at **545** may indicate an operation type associated with the third operation (e.g., Type b), the priority level associated with the third operation, or both.

[0182] At **555**, the passive device **505** may perform the third operation (Operation 3). For example, in the context of a write operation, the passive device **505** may configure or modify one or more operational parameters of the passive device **505**. Comparatively, in the context of a reading operation, the passive device **505** may transmit signals to the second querying device **510**-*b* (or a related reader device), where the signals indicate measurements performed by the passive device **505**, a location of the passive device **405**, and the like.

[0183] Techniques described herein may enable querying devices **510** to pre-empt or override previous operations initiated at the passive device **505**. In particular, as shown in FIG. **5**, techniques described herein may enable the second querying device **510**-*b* to pre-empt another operation that was previously initiated at the passive device **505** by the first querying device **510**-*a*.

[0184] FIG. **6** illustrates an example of a resource configuration **600** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. In some examples, aspects of the resource configuration **600** may implement, or be implemented by, aspects of the wireless communications system **100**, the wireless communications system **200**, or both. In particular, the resource configuration **600** illustrates signaling between a passive device and RF sources that enables the passive device to determine and signal a relative priority between read and write operations, as described with reference to FIGS. **1**-**5**, among other aspects.

[0185] The resource configuration **600** illustrates communications between a passive device (e.g., passive device **205** illustrated in FIG. **2**) and one or more querying devices **605** within a set of TTIs (e.g., slots, sets of slots). In particular, the resource configuration **600** illustrates communications between a first querying device **605**-*a*, a second querying device **605**-*b*, and a passive device.

[0186] At **610**, the first querying device **605**-*a* may transmit a query or command to start or initiate a first operation (e.g., first read operation, first write operation) at the passive device, where the first operation is associated with a second priority level (Priority 2). For example, the first querying device **605**-*a* may transmit a CW portion **230** of a query to power-up the passive device, as shown in FIG. **2**. As described previously herein, the priority level of the first operation may be explicitly or implicitly signaled via the query at **610**, and/or determined based on the type of operation, a priority or identifier associated with the first querying device **605**-*a*, based on a priority configuration, or any combination thereof. At **615**, the first querying device **605**-*a* transmits a query or command for the first operation. For example, the first querying device may transmit a command **235**-*a* for the first operation, as shown in FIG. **2**.

[0187] At **620**, the second querying device **605**-*a* may transmit a query or command to start or initiate a second operation (e.g., second read operation, second write operation) at the passive device, where the second operation is associated with a first priority level (Priority 1) that is higher than the first priority level (e.g., Priority 1>Priority 2). For example, the second querying device **605**-*a* may transmit a CW portion **230** of a query to power-up the passive device, as shown in FIG. **2**. As described previously herein, the priority level of the second operation may be explicitly or implicitly signaled via the query at **620**, and/or determined based on the type of operation, a priority or identifier associated with the second querying device **605**-*b*, based on a priority configuration, or any combination thereof.

[0188] At **625**, the passive device may transmit a response message to the first querying device **605**-*b*, where the response message indicates that the passive device has received a query for a higher-priority operation, and will therefore stop, cancel, or postpone the first operation initiated by the first querying device **605**-*a*. In other words, the passive device may indicate, to the first querying device **605**-*b*, that the passive device is prioritizing the second operation initiated by the second querying device **605**-*b* over the first operation initiated by the first querying device **605**-*a*.

[0189] At **630**, **635**, and **640**, the passive device may cancel or otherwise refrain from performing the first operation initiated by the first querying device **605**-*a*. The passive device may cancel or refrain from performing the first operation at **630** through **640** based on receiving the query for the higher-priority operation at **620**, transmitting the response message to the first querying device **605**-*a* at **625**, or both.

[0190] At **645**, **650**, or both, the passive device may perform the second operation. For example, in the context of a write operation, the passive device may configure or modify one or more operational parameters of the passive device. Comparatively, in the context of a reading operation, the passive device may transmit signals to the second querying device **605**-*b* (or a related reader device), where the signals indicate measurements performed by the passive device, a location of the passive device, and the like.

[0191] The signaling and operations shown and described in FIG. **6** may be further understood with reference to FIGS. **7** and **8**.

[0192] FIG. **7** illustrates an example of a process flow **700** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. In some examples, aspects of the process flow **700** may implement, or be implemented by, aspects of the wireless communications system **100**, the wireless communications system **200**, the resource configuration **600**, or any combination thereof. In particular, the process flow **700** illustrates signaling between querying devices and a passive device that enables a querying device to pre-empt a read/write operation that was previously initiated by another querying device with a higher-priority operation, as described with reference to FIGS. **1-6**, among other aspects.

[0193] The process flow **700** may include a passive device **705**, a first querying device **710**-*a*, and a second querying device **710**-*b*, which may be examples of passive devices, UEs **115**, network entities **105**, and other wireless devices described with reference to FIGS. **1-6**. For example, the passive device **705** may include an example of an RFID tag or a passive component of a querying device, as shown and described in FIG. **2**. Additionally, the first querying device **710**-*a* may include an example of the first UE **115**-*a*, the third UE **115**-*c*, or both, as shown and described in FIG. **2**. Similarly, the second querying device **710**-*b* may include an example of the second UE **115**-*b*, the fourth UE **115**-*d*, or both, as shown and described in FIG. **2**.

[0194] In some examples, the operations illustrated in process flow **700** may be performed by hardware (e.g., including circuitry, processing blocks, logic components, and other components), code (e.g., software) executed by a processor, or any combination thereof. Alternative examples of the following may be implemented, where some steps are performed in a different order than described or are not performed at all. In some cases, steps may include additional features not mentioned below, or further steps may be added.

[0195] At **715**, the passive device **705** may transmit or broadcast, to the first querying device **710**-*a*, the second querying device **710**-*b*, or both, a message indicating information associated with a status or queue of operations to be performed at the passive device **705**. In other words, the passive device **705** may transmit a message indicating whether the passive device **705** is available, or whether the passive device is booked/busy. In some cases, passive device **405** may transmit the message at **705** in accordance with some periodicity, where the periodicity may be pre-configured, signaled to the passive device **705** (e.g., via a write operation), or both. Moreover, in some cases, the passive device **705** may transmit the message at **715** based on receiving some RF signal (e.g., from the first querying device **710**-*a*, second querying device **710**-*b*, or other device, such as a network entity **105**) that provides power for the passive device **705** to transmit the signal.

[0196] At **720**, the first querying device **710**-*a* may transmit, to the passive device **705**, a signal or message to start a first operation (Operation 1) at the passive device **705**. The first operation may include a read operation or a write operation that is to be performed by the passive device **705**, where the first operation is associated with a first priority level (Priority 1). For example, the first querying device **710**-*a* may transmit a CW portion **230** of a query to power-up the passive device, as shown in FIG. **2**. As described previously herein, the priority level of the first operation may be explicitly or implicitly signaled via the message at **720**, and/or determined based on the type of operation, a priority or identifier associated with the first querying device **710**-*a*, based on a priority configuration, or any combination thereof. In some aspects, the first querying device **710**-*a* may transmit the message at **720** based on receiving the message associated with the status/queue of the passive device **705** at **715**.

[0197] At **725**, the first querying device **710**-*a* may transmit a query or command for the first operation. For example, the first querying device **710**-*a* may transmit a command **235**-*a* for the first operation, as shown in FIG. **2**. As such, the first querying device **710**-*a* may transmit the query at **720** based on transmitting the message to initiate the first operation at **720**, and/or receiving the message associated with the status/queue of the passive device **705** at **715**. In some aspects, the query at **725** may indicate an operation type associated with the first operation (e.g., Type A), the priority level associated with the first operation, or both.

[0198] At **730**, the second querying device **710**-*b* may transmit a message (e.g., query, command) for the passive device **705** to perform a second operation (Operation 2) with a same or higher priority (e.g., Priority 1) as compared to the first operation. In other words, the second querying device **710**-*b* may attempt to pre-empt the first operation at the passive device **705** by transmitting the query for the second operation. In some aspects, the second querying device **710**-*b* may transmit the message at **730** based on receiving the message associated with the status/queue of the passive device **705** at **715**.

[0199] At **735**, the passive device **705** may transmit a response message to the second querying device **710**-*b*, where the response message indicates that the passive device **705** is busy communicating with another reader/querying device for an operation/session with the same or higher priority. In other words, the passive device **705** may indicate, to the second querying device **710**-*b*, that the passive device **705** is prioritizing Operation 1 initiated by the first querying device **710**-*a* over Operation 2 initiated by the second querying device **710**-*b*. In some implementations, the passive device **705** may transmit the response message to both the first and second querying devise **710** so that the querying devices **710** can predict or expect the behavior of the passive device **705**.

[0200] At **740**, the second querying device **710**-*b* may transmit a request for an identity or identifier associated with the previously-initiated operation that is being prioritized at the passive device **705**. In other words, the second querying device **710**-*b* may request a reader ID associated with the querying device **710** (e.g., first querying device **710**-*a*) that initiated Operation 1 that is being prioritized over Operation 2. The second querying device **710**-*b* may transmit the request at **740** based on transmitting the query/message at **730**, receiving the response message at **735**, or both.

[0201] At **745**, the passive device **705** may transmit, to the second querying device **710**-*b*, a message indicating an identifier associated with the first querying device **710**-*a*. In other words, the passive device **705** may transmit a message indicating a reader ID of the first querying device **710**-*a*. The passive device **705** may transmit the message indicating the current reader ID at **745** based on (e.g., in response to) receiving the request at **740**.

[0202] At **750**, the second querying device **710**-*b* may transmit a message to the first querying device **710**-*a*, where the message indicates that the second querying device **710**-*b* has an operation to be performed with the passive device **705** with the same or higher priority as the operation that was previously initiated by the first querying device **710**-*a*. In this regard, in some cases, the message at **750** may include a request or instruction for the first querying device **710**-*a* to stop, cancel, or postpone the first operation so that the passive device **705** can perform or prioritize the second operation initiated by the second querying device **710**-*b*. In some cases, the message at **750** may indicate information associated with the second operation, such as the priority level, the operation type, an identifier associated with the second querying device **710**-*b*, or any combination thereof. Moreover, the second querying device **710**-*b* may transmit the message at **750** based on receiving the identifier (e.g., reader ID) associated with the first querying device **710**-*a* at **745**.

[0203] Upon receiving the message at **750**, the first querying device **710**-*a* and the second querying device **710**-*b* may coordinate or negotiate which operation will be performed/prioritized at the passive device **705**. In some implementations, the first querying device **710**-*a* may stop, cancel, or postpone the first operation in response to the message at **750**. In such cases, the first querying device **710**-*a* may transmit a message to the passive device **705** to stop, cancel or postpone the first operation. Additionally, in some cases, the first querying device **710**-*a* and/or the passive device **705** may transmit a message to the second querying device **710**-*b* indicating that the first operation has been postponed. In this regard, the second querying device **710**-*b* may transmit a query to the passive device **705** to re-initiate the second operation (Operation 2).

[0204] Techniques described herein may enable the passive device **705** and the querying devices **710** to exchange information with one another (e.g., identifiers of querying devices **710**, or reader IDs) to enable the querying devices **710** to coordinate or negotiate which operations will be performed and/or prioritized at the passive device **705**.

[0205] FIG. **8** illustrates an example of a process flow **800** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. In some examples, aspects of the process flow **700** may implement, or be implemented by, aspects of the wireless communications system **100**, the wireless communications system **200**, the resource configuration **600**, the process flow **700**, or any combination thereof. In particular, the process flow **800** illustrates signaling between querying devices and a passive device that enables a querying device to pre-empt a read/write operation that was previously initiated by another querying device with a higher-priority operation, as described with reference to FIGS. **1**-**7**, among other aspects.

[0206] The process flow **800** may include a passive device **805**, a first querying device **810**-*a*, a second querying device **810**-*b*, and a network entity **105**-*b*, which may be examples of passive devices, UEs **115**, network entities **105**, and other wireless devices described with reference to FIGS. **1**-**7**. For example, the passive device **805** may include an example of an RFID tag or a passive component of a querying device, as shown and described in FIG. **2**. Additionally, the first querying device **810**-*a* may include an example of the first UE **115**-*a*, the third UE **115**-*c*, or both, as shown and described in FIG. **2**. Similarly, the second querying device **810**-*b* may include an example of the second UE **115**-*b*, the fourth UE **115**-*d*, or both, as shown and described in FIG. **2**. Moreover, the network entity **105**-*b* illustrated in FIG. **8** may include an example of the network entity **105**-*a* shown and described in FIG. **2**.

[0207] In some examples, the operations illustrated in process flow **800** may be performed by hardware (e.g., including circuitry, processing blocks, logic components, and other components), code (e.g., software) executed by a processor, or any combination thereof. Alternative examples of the following may be implemented, where some steps are performed in a different order than described or are not performed at all. In some cases, steps may include additional features not mentioned below, or further steps may be added.

[0208] At **815**, the passive device **805** may transmit or broadcast, to the first querying device **810**-*a*, the second querying device **810**-*b*, or both, a message indicating information associated with a status or queue of operations to be performed at the passive device **805**. In other words, the passive device **805** may transmit a message indicating whether the passive device **805** is available, or whether the passive device is booked/busy. In some cases, passive device **405** may transmit the message at **805** in accordance with some periodicity, where the periodicity may be pre-configured, signaled to the passive device **805** (e.g., via a write operation), or both. Moreover, in some cases, the passive device **805** may transmit the message at **815** based on receiving some RF signal (e.g., from the first querying device **810**-*a*, the second querying device **810**-*b*, the network entity **105**-*b*, etc.) that provides power for the passive device **805** to transmit the signal.

[0209] At **820**, the first querying device **810**-*a* may transmit, to the passive device **805**, a signal or message to start a first operation (Operation 1) at the passive device **805**. The first operation may include a read operation or a write operation that is to be performed by the passive device **805**, where the first operation is associated with a first priority level (Priority 1). For example, the first querying device **810**-*a* may transmit a CW portion **230** of a query to power-up the passive device, as shown in FIG. **2**. As described previously herein, the priority level of the first operation may be explicitly or implicitly signaled via the message at **820**, and/or determined based on the type of operation, a priority or identifier associated with the first querying device **810**-*a*, based on a priority configuration, or any combination thereof. In some aspects, the first querying device **810**-*a* may transmit the message at **820** based on receiving the message associated with the status/queue of the passive device **805** at **815**.

[0210] At **825**, the first querying device **810**-*a* may transmit a query or command for the first operation. For example, the first querying device **810**-*a* may transmit a command **235**-*a* for the first operation, as shown in FIG. **2**. As such, the first querying device **810**-*a* may transmit the query at **820** based on transmitting the message to initiate the first operation at **820**, and/or receiving the message associated with the status/queue of the passive device **805** at **815**. In some aspects, the query at **825** may indicate an operation type associated with the first operation (e.g., Type A), the priority level associated with the first operation, or both.

[0211] At **830**, the second querying device **810**-*b* may transmit a message (e.g., query, command) for the passive device **805** to perform a second operation (Operation 2) with

a same or higher priority (e.g., Priority 1) as compared to the first operation. In other words, the second querying device **810**-*b* may attempt to pre-empt the first operation at the passive device **805** by transmitting the query for the second operation. In some aspects, the second querying device **810**-*b* may transmit the message at **830** based on receiving the message associated with the status/queue of the passive device **805** at **815**.

[0212] At **835**, the passive device **805** may transmit a response message to the second querying device **810**-*b*, where the response message indicates that the passive device **805** is busy communicating with another reader/querying device for an operation/session with the same or higher priority. In other words, the passive device **805** may indicate, to the second querying device **810**-*b*, that the passive device **805** is prioritizing Operation 1 initiated by the first querying device **810**-*a* over Operation 2 initiated by the second querying device **810**-*b*. In some implementations, the passive device **805** may transmit the response message to both the first and second querying devise **810** so that the querying devices **810** can predict or expect the behavior of the passive device **805**.

[0213] At **840**, the second querying device **810**-*b* may transmit a request for an identity or identifier associated with the previously-initiated operation that is being prioritized at the passive device **805**. In other words, the second querying device **810**-*b* may request a reader ID associated with the querying device **810** (e.g., first querying device **810**-*a*) that initiated Operation 1 that is being prioritized over Operation 2. The second querying device **810**-*b* may transmit the request at **840** based on transmitting the query/message at **830**, receiving the response message at **835**, or both.

[0214] At **845**, the passive device **805** may transmit, to the second querying device **810**-*b*, the network entity **105**-*b*, or both, a message indicating an identifier associated with the first querying device **810**-*a*. In other words, the passive device **805** may transmit a message indicating a reader ID of the first querying device **810**-*a*. The passive device **805** may transmit the message indicating the current reader ID at **845** based on (e.g., in response to) receiving the request at **840**.

[0215] At **850**, the network entity **105**-*b* may transmit a message to the first querying device **810**-*a*, where the message indicates that the second querying device **810**-*b* has an operation to be performed with the passive device **805** with the same or higher priority as the operation that was previously initiated by the first querying device **810**-*a*. In this regard, in some cases, the message at **850** may include a request or instruction for the first querying device **810**-*a* to stop, cancel, or postpone the first operation so that the passive device **805** can perform or prioritize the second operation initiated by the second querying device **810**-*b*. In some cases, the message at **850** may indicate information associated with the second operation, such as the priority level, the operation type, an identifier associated with the second querying device **810**-*b*, or any combination thereof. Moreover, the network entity **105**-*b* may transmit the message at **850** based on receiving the identifier (e.g., reader ID) associated with the first querying device **810**-*a* at **845**.

[0216] At **855**, the first querying device **810**-*a* may transmit a message to the passive device **805** to stop, cancel or postpone the first operation. The first querying device **810**-*a* may transmit the message at **855** based on receiving the message at **850**.

[0217] At **860**, the first querying device **810**-*a* may transmit a message to the second querying device **810**-*b*, the network entity **105**-*b*, or both, where the message indicates that the first querying device **810**-*a* has canceled or postponed the first operation. In this regard, the first querying device **810**-*a* may transmit the message at **860** based on receiving the message at **850**, transmitting the message at **855**, or both.

[0218] In some aspects, the second querying device **810**-*b* may transmit a query to the passive device **805** to re-initiate the second operation (Operation 2) after receiving the message at **860** indicating that the first querying device **810**-*a* canceled or postponed the first operation.

[0219] Techniques described herein may enable the passive device **805** and the querying devices **810** to exchange information with one another (e.g., identifiers of querying devices **810**, or reader IDs) to enable the querying devices **810** to coordinate or negotiate which operations will be performed and/or prioritized at the passive device **805**.

[0220] FIG. **9** shows a block diagram **900** of a device **905** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The device **905** may be an example of aspects of a passive device (e.g., RFID tag, passive IoT device, hybrid devices including passive and active components, passive components of a UE **115**) as described herein. The device **905** may include a receiver **910**, a transmitter **915**, and a communications manager **920**. The device **905** may also include a processor. Each of these components may be in communication with one another (e.g., via one or more buses).

[0221] The receiver **910** may provide a means for receiving information such as packets, user data, control information, or any combination thereof associated with various information channels (e.g., control channels, data channels, information channels related to techniques for prioritizing and handling conflicting read and write commands for passive devices). Information may be passed on to other components of the device **905**. The receiver **910** may utilize a single antenna or a set of multiple antennas.

[0222] The transmitter **915** may provide a means for transmitting signals generated by other components of the device **905**. For example, the transmitter **915** may transmit information such as packets, user data, control information, or any combination thereof associated with various information channels (e.g., control channels, data channels, information channels related to techniques for prioritizing and handling conflicting read and write commands for passive devices). In some examples, the transmitter **915** may be co-located with a receiver **910** in a transceiver module. The transmitter **915** may utilize a single antenna or a set of multiple antennas.

[0223] The communications manager **920**, the receiver **910**, the transmitter **915**, or various combinations thereof or various components thereof may be examples of means for performing various aspects of techniques for prioritizing and handling conflicting read and write commands for passive devices as described herein. For example, the communications manager **920**, the receiver **910**, the transmitter **915**, or various combinations or components thereof may support a method for performing one or more of the functions described herein.

[0224] In some examples, the communications manager **920**, the receiver **910**, the transmitter **915**, or various combinations or components thereof may be implemented in hardware (e.g., in communications management circuitry). The hardware may include a processor, a digital signal processor (DSP), a central processing unit (CPU), an application-specific integrated circuit (ASIC), a field-programmable gate array (FPGA) or other programmable logic device, a microcontroller, discrete gate or transistor logic, discrete hardware components, or any combination thereof configured as or otherwise supporting a means for performing the functions described in the present disclosure. In some examples, a processor and memory coupled with the processor may be configured to perform one or more of the functions described herein (e.g., by executing, by the processor, instructions stored in the memory).

[0225] Additionally, or alternatively, in some examples, the communications manager **920**, the receiver **910**, the transmitter **915**, or various combinations or components thereof may be implemented in code (e.g., as communications management software or firmware) executed by a processor. If implemented in code executed by a processor, the functions of the communications manager **920**, the receiver **910**, the transmitter **915**, or various combinations or components thereof may be performed by a general-purpose processor, a DSP, a CPU, an ASIC, an FPGA, a microcontroller, or any combination of these or other programmable logic devices (e.g., configured as or otherwise supporting a means for performing the functions described in the present disclosure).

[0226] In some examples, the communications manager **920** may be configured to perform various operations (e.g., receiving, obtaining, monitoring, outputting, transmitting) using or otherwise in cooperation with the receiver **910**, the transmitter **915**, or both. For example, the communications manager **920** may receive information from the receiver **910**, send information to the transmitter **915**, or be integrated in combination with the receiver **910**, the transmitter **915**, or both to obtain information, output information, or perform various other operations as described herein.

[0227] The communications manager **920** may support wireless communication at a passive device in accordance with examples as disclosed herein. For example, the communications manager **920** may be configured as or otherwise support a means for receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The communications manager **920** may be configured as or otherwise support a means for receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both. The communications manager **920** may be configured as or otherwise support a means for transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both. The communications manager **920** may be configured as or otherwise support a means for performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message.

[0228] By including or configuring the communications manager **920** in accordance with examples as described herein, the device **905** (e.g., a processor controlling or otherwise coupled with the receiver **910**, the transmitter **915**, the communications manager **920**, or a combination thereof) may support techniques that enable passive devices, such as RFID tags, to determine relative priorities of read and write operations that are to be performed at the passive devices, thereby improving the speed and efficiency with which passive devices are able to perform reading and writing operations. As such, techniques described herein may improve the efficiency and latency of services and applications associated with passive devices within a wireless communications system, such as location tracking services. Moreover, techniques described herein may enable querying devices to quickly and efficiently determine a status of respective passive devices (e.g., whether each passive device is available or busy), thereby facilitating the ability of querying devices to identify passive devices that may be used for wireless communications.

[0229] FIG. **10** shows a block diagram **1000** of a device **1005** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The device **1005** may be an example of aspects of a device **905** or a passive device as described herein. The device **1005** may include a receiver **1010**, a transmitter **1015**, and a communications manager **1020**. The device **1005** may also include a processor. Each of these components may be in communication with one another (e.g., via one or more buses).

[0230] The receiver **1010** may provide a means for receiving information such as packets, user data, control information, or any combination thereof associated with various information channels (e.g., control channels, data channels, information channels related to techniques for prioritizing and handling conflicting read and write commands for passive devices). Information may be passed on to other components of the device **1005**. The receiver **1010** may utilize a single antenna or a set of multiple antennas.

[0231] The transmitter **1015** may provide a means for transmitting signals generated by other components of the device **1005**. For example, the transmitter **1015** may transmit information such as packets, user data, control information, or any combination thereof associated with various information channels (e.g., control channels, data channels, information channels related to techniques for prioritizing and handling conflicting read and write commands for passive devices). In some examples, the transmitter **1015** may be co-located with a receiver **1010** in a transceiver module. The transmitter **1015** may utilize a single antenna or a set of multiple antennas.

[0232] The device **1005**, or various components thereof, may be an example of means for performing various aspects of techniques for prioritizing and handling conflicting read and write commands for passive devices as described herein. For example, the communications manager **1020** may include a query receiving manager **1025**, a status message transmitting manager **1030**, an operation manager **1035**, or any combination thereof. The communications manager **1020** may be an example of aspects of a communications manager **920** as described herein. In some examples, the communications manager **1020**, or various components thereof, may be configured to perform various operations

(e.g., receiving, obtaining, monitoring, outputting, transmitting) using or otherwise in cooperation with the receiver **1010**, the transmitter **1015**, or both. For example, the communications manager **1020** may receive information from the receiver **1010**, send information to the transmitter **1015**, or be integrated in combination with the receiver **1010**, the transmitter **1015**, or both to obtain information, output information, or perform various other operations as described herein.

[0233] The communications manager **1020** may support wireless communication at a passive device in accordance with examples as disclosed herein. The query receiving manager **1025** may be configured as or otherwise support a means for receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The query receiving manager **1025** may be configured as or otherwise support a means for receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both. The status message transmitting manager **1030** may be configured as or otherwise support a means for transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both. The operation manager **1035** may be configured as or otherwise support a means for performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message.

[0234] FIG. **11** shows a block diagram **1100** of a communications manager **1120** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The communications manager **1120** may be an example of aspects of a communications manager **920**, a communications manager **1020**, or both, as described herein. The communications manager **1120**, or various components thereof, may be an example of means for performing various aspects of techniques for prioritizing and handling conflicting read and write commands for passive devices as described herein. For example, the communications manager **1120** may include a query receiving manager **1125**, a status message transmitting manager **1130**, an operation manager **1135**, a control signaling receiving manager **1140**, a prioritization manager **1145**, a signal receiving manager **1150**, a request receiving manager **1155**, a message transmitting manager **1160**, an operational parameter manager **1165**, or any combination thereof. Each of these components may communicate, directly or indirectly, with one another (e.g., via one or more buses).

[0235] The communications manager **1120** may support wireless communication at a passive device in accordance with examples as disclosed herein. The query receiving manager **1125** may be configured as or otherwise support a means for receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. In some examples, the query receiving manager **1125** may be configured as or otherwise support a means for receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both. The status message transmitting manager **1130** may be configured as or otherwise support a means for transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both. The operation manager **1135** may be configured as or otherwise support a means for performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message.

[0236] In some examples, the query receiving manager **1125** may be configured as or otherwise support a means for receiving the first priority level via the first query. In some examples, the query receiving manager **1125** may be configured as or otherwise support a means for receiving the second priority level via the second query, where transmitting the message is based on the first priority level, the second priority level, or both. In some examples, the first priority level is based on the first operation including the first write operation. In some examples, the second priority level is based on the second operation including the second read operation.

[0237] In some examples, the prioritization manager **1145** may be configured as or otherwise support a means for prioritizing the first operation over the second read operation based on the first priority level being greater than the second priority level, where transmitting the message is based on the prioritizing, and where performing one of the first operation or the second operation includes performing the first operation based on the prioritizing.

[0238] In some examples, the control signaling receiving manager **1140** may be configured as or otherwise support a means for receiving, from the first querying device, the second querying device, or an additional wireless device, control signaling indicating a priority configuration usable for determining priority levels associated with operations to be performed at the passive device. In some examples, the prioritization manager **1145** may be configured as or otherwise support a means for determining the first priority level, the second priority level, or both, in accordance with the priority configuration, where transmitting the message, performing one of the first operation or the second operation, or both, is based on determining the first priority level, the second priority level, or both.

[0239] In some examples, the priority configuration includes one or more rules, one or more conditions, or both, for determining priority levels associated with operations to be performed at the passive device. In some examples, determining the first priority level, the second priority level, or both, is based on the one or more rules, the one or more conditions, or both.

[0240] In some examples, the first priority level is based on a first operation type associated with the first operation. In some examples, the second priority level is based on a second operation type associated with the second operation. In some examples, the second query is received from the second querying device. In some examples, the first priority level is based on a first identifier associated with the first

querying device. In some examples, the second priority level is based on a second identifier associated with the second querying device.

[0241] In some examples, the status message transmitting manager **1130** may be configured as or otherwise support a means for transmitting the message to at least the second querying device based on the first priority level being greater than the second priority level, where the message includes an indication that the passive device is busy performing the first operation. In some examples, the status message transmitting manager **1130** may be configured as or otherwise support a means for transmitting the message to at least the first querying device based on the first priority level being less than the second priority level, where the message includes an indication that the passive device has received the second query for the second operation having a higher priority than the first operation.

[0242] In some examples, the status message transmitting manager **1130** may be configured as or otherwise support a means for transmitting, via the message, an indication of the first priority level, the second priority level, a first operation type associated with the first operation, a second operation type associated with the second operation, a first identifier associated with the first querying device, a second identifier associated with the second querying device, or any combination thereof.

[0243] In some examples, the second query is received from the first querying device, and the signal receiving manager **1150** may be configured as or otherwise support a means for receiving, via the second query, an instruction to stop the first operation and to perform the second operation, where the passive device performs the second operation based on the instruction.

[0244] In some examples, the status message transmitting manager **1130** may be configured as or otherwise support a means for transmitting a set of multiple messages in accordance with a periodicity, the set of multiple messages associated with a queue of operations to be performed by the passive device, the set of multiple messages including the message indicating the status of the first operation, the second operation, or both.

[0245] In some examples, the signal receiving manager **1150** may be configured as or otherwise support a means for receiving a set of multiple signals in accordance with the periodicity, where transmitting the set of multiple messages is based on receiving the set of multiple signals.

[0246] In some examples, the message includes an indication that the passive device is busy performing the first operation, and the request receiving manager **1155** may be configured as or otherwise support a means for receiving, from the second querying device and in response to the message, a request for an identifier associated with the first querying device. In some examples, the message includes an indication that the passive device is busy performing the first operation, and the message transmitting manager **1160** may be configured as or otherwise support a means for transmitting a second message to the second querying device based on receiving the request, the second message indicating the identifier associated with the first querying device.

[0247] In some examples, the first operation may be performed at a first time, and the operation manager **1135** may be configured as or otherwise support a means for performing the second operation at a second time subsequent to the first time based on the second priority level being less than the first priority level.

[0248] In some examples, to support performing one of the first write operation or the second write operation, the operational parameter manager **1165** may be configured as or otherwise support a means for adjusting one or more operational parameters at the passive device.

[0249] In some examples, to support performing one of the first read operation or the second read operation, the message transmitting manager **1160** may be configured as or otherwise support a means for transmitting a data message to the first querying device, the second querying device, or both.

[0250] In some examples, the passive device includes an RFID tag, a passive component of a wireless device, or both. In some examples, the first querying device, the second querying device, or both, include a UE, a network entity, or both.

[0251] FIG. **12** shows a diagram of a system **1200** including a device **1205** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The device **1205** may be an example of or include the components of a device **905**, a device **1005**, or a passive device as described herein. The device **1205** may communicate (e.g., wirelessly) with one or more network entities **105**, one or more UEs **115**, or any combination thereof. The device **1205** may include components for bi-directional voice and data communications including components for transmitting and receiving communications, such as a communications manager **1220**, an input/output (I/O) controller **1210**, a transceiver **1215**, an antenna **1225**, a memory **1230**, code **1235**, and a processor **1240**. These components may be in electronic communication or otherwise coupled (e.g., operatively, communicatively, functionally, electronically, electrically) via one or more buses (e.g., a bus **1245**).

[0252] The I/O controller **1210** may manage input and output signals for the device **1205**. The I/O controller **1210** may also manage peripherals not integrated into the device **1205**. In some cases, the I/O controller **1210** may represent a physical connection or port to an external peripheral. In some cases, the I/O controller **1210** may utilize an operating system such as iOS®, ANDROID®, MS-DOS®, MS-WINDOWS®, OS/2®, UNIX®, LINUX®, or another known operating system. Additionally, or alternatively, the I/O controller **1210** may represent or interact with a modem, a keyboard, a mouse, a touchscreen, or a similar device. In some cases, the I/O controller **1210** may be implemented as part of a processor, such as the processor **1240**. In some cases, a user may interact with the device **1205** via the I/O controller **1210** or via hardware components controlled by the I/O controller **1210**.

[0253] In some cases, the device **1205** may include a single antenna **1225**. However, in some other cases, the device **1205** may have more than one antenna **1225**, which may be capable of concurrently transmitting or receiving multiple wireless transmissions. The transceiver **1215** may communicate bi-directionally, via the one or more antennas **1225**, wired, or wireless links as described herein. For example, the transceiver **1215** may represent a wireless transceiver and may communicate bi-directionally with another wireless transceiver. The transceiver **1215** may also include a modem to modulate the packets, to provide the

modulated packets to one or more antennas **1225** for transmission, and to demodulate packets received from the one or more antennas **1225**. The transceiver **1215**, or the transceiver **1215** and one or more antennas **1225**, may be an example of a transmitter **915**, a transmitter **1015**, a receiver **910**, a receiver **1010**, or any combination thereof or component thereof, as described herein.

[0254] The memory **1230** may include random access memory (RAM) and read-only memory (ROM). The memory **1230** may store computer-readable, computer-executable code **1235** including instructions that, when executed by the processor **1240**, cause the device **1205** to perform various functions described herein. The code **1235** may be stored in a non-transitory computer-readable medium such as system memory or another type of memory. In some cases, the code **1235** may not be directly executable by the processor **1240** but may cause a computer (e.g., when compiled and executed) to perform functions described herein. In some cases, the memory **1230** may contain, among other things, a basic I/O system (BIOS) which may control basic hardware or software operation such as the interaction with peripheral components or devices.

[0255] The processor **1240** may include an intelligent hardware device (e.g., a general-purpose processor, a DSP, a CPU, a microcontroller, an ASIC, an FPGA, a programmable logic device, a discrete gate or transistor logic component, a discrete hardware component, or any combination thereof). In some cases, the processor **1240** may be configured to operate a memory array using a memory controller. In some other cases, a memory controller may be integrated into the processor **1240**. The processor **1240** may be configured to execute computer-readable instructions stored in a memory (e.g., the memory **1230**) to cause the device **1205** to perform various functions (e.g., functions or tasks supporting techniques for prioritizing and handling conflicting read and write commands for passive devices). For example, the device **1205** or a component of the device **1205** may include a processor **1240** and memory **1230** coupled with or to the processor **1240**, the processor **1240** and memory **1230** configured to perform various functions described herein.

[0256] The communications manager **1220** may support wireless communication at a passive device in accordance with examples as disclosed herein. For example, the communications manager **1220** may be configured as or otherwise support a means for receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The communications manager **1220** may be configured as or otherwise support a means for receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both. The communications manager **1220** may be configured as or otherwise support a means for transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both. The communications manager **1220** may be configured as or otherwise support a means for performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message.

[0257] By including or configuring the communications manager **1220** in accordance with examples as described herein, the device **1205** may support techniques that enable passive devices, such as RFID tags, to determine relative priorities of read and write operations that are to be performed at the passive devices, thereby improving the speed and efficiency with which passive devices are able to perform reading and writing operations. As such, techniques described herein may improve the efficiency and latency of services and applications associated with passive devices within a wireless communications system, such as location tracking services. Moreover, techniques described herein may enable querying devices to quickly and efficiently determine a status of respective passive devices (e.g., whether each passive device is available or busy), thereby facilitating the ability of querying devices to identify passive devices that may be used for wireless communications.

[0258] In some examples, the communications manager **1220** may be configured to perform various operations (e.g., receiving, monitoring, transmitting) using or otherwise in cooperation with the transceiver **1215**, the one or more antennas **1225**, or any combination thereof. Although the communications manager **1220** is illustrated as a separate component, in some examples, one or more functions described with reference to the communications manager **1220** may be supported by or performed by the processor **1240**, the memory **1230**, the code **1235**, or any combination thereof. For example, the code **1235** may include instructions executable by the processor **1240** to cause the device **1205** to perform various aspects of techniques for prioritizing and handling conflicting read and write commands for passive devices as described herein, or the processor **1240** and the memory **1230** may be otherwise configured to perform or support such operations.

[0259] FIG. **13** shows a block diagram **1300** of a device **1305** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The device **1305** may be an example of aspects of a querying device (e.g., UE **115**, network entity **105**) as described herein. The device **1305** may include a receiver **1310**, a transmitter **1315**, and a communications manager **1320**. The device **1305** may also include a processor. Each of these components may be in communication with one another (e.g., via one or more buses).

[0260] The receiver **1310** may provide a means for obtaining (e.g., receiving, determining, identifying) information such as user data, control information, or any combination thereof (e.g., I/Q samples, symbols, packets, protocol data units, service data units) associated with various channels (e.g., control channels, data channels, information channels, channels associated with a protocol stack). Information may be passed on to other components of the device **1305**. In some examples, the receiver **1310** may support obtaining information by receiving signals via one or more antennas. Additionally, or alternatively, the receiver **1310** may support obtaining information by receiving signals via one or more wired (e.g., electrical, fiber optic) interfaces, wireless interfaces, or any combination thereof.

[0261] The transmitter **1315** may provide a means for outputting (e.g., transmitting, providing, conveying, send-

ing) information generated by other components of the device **1305**. For example, the transmitter **1315** may output information such as user data, control information, or any combination thereof (e.g., I/Q samples, symbols, packets, protocol data units, service data units) associated with various channels (e.g., control channels, data channels, information channels, channels associated with a protocol stack). In some examples, the transmitter **1315** may support outputting information by transmitting signals via one or more antennas. Additionally, or alternatively, the transmitter **1315** may support outputting information by transmitting signals via one or more wired (e.g., electrical, fiber optic) interfaces, wireless interfaces, or any combination thereof. In some examples, the transmitter **1315** and the receiver **1310** may be co-located in a transceiver, which may include or be coupled with a modem.

[0262] The communications manager **1320**, the receiver **1310**, the transmitter **1315**, or various combinations thereof or various components thereof may be examples of means for performing various aspects of techniques for prioritizing and handling conflicting read and write commands for passive devices as described herein. For example, the communications manager **1320**, the receiver **1310**, the transmitter **1315**, or various combinations or components thereof may support a method for performing one or more of the functions described herein.

[0263] In some examples, the communications manager **1320**, the receiver **1310**, the transmitter **1315**, or various combinations or components thereof may be implemented in hardware (e.g., in communications management circuitry). The hardware may include a processor, a DSP, a CPU, an ASIC, an FPGA or other programmable logic device, a microcontroller, discrete gate or transistor logic, discrete hardware components, or any combination thereof configured as or otherwise supporting a means for performing the functions described in the present disclosure. In some examples, a processor and memory coupled with the processor may be configured to perform one or more of the functions described herein (e.g., by executing, by the processor, instructions stored in the memory).

[0264] Additionally, or alternatively, in some examples, the communications manager **1320**, the receiver **1310**, the transmitter **1315**, or various combinations or components thereof may be implemented in code (e.g., as communications management software or firmware) executed by a processor. If implemented in code executed by a processor, the functions of the communications manager **1320**, the receiver **1310**, the transmitter **1315**, or various combinations or components thereof may be performed by a general-purpose processor, a DSP, a CPU, an ASIC, an FPGA, a microcontroller, or any combination of these or other programmable logic devices (e.g., configured as or otherwise supporting a means for performing the functions described in the present disclosure).

[0265] In some examples, the communications manager **1320** may be configured to perform various operations (e.g., receiving, obtaining, monitoring, outputting, transmitting) using or otherwise in cooperation with the receiver **1310**, the transmitter **1315**, or both. For example, the communications manager **1320** may receive information from the receiver **1310**, send information to the transmitter **1315**, or be integrated in combination with the receiver **1310**, the transmitter **1315**, or both to obtain information, output information, or perform various other operations as described herein.

[0266] The communications manager **1320** may support wireless communication at a querying device in accordance with examples as disclosed herein. For example, the communications manager **1320** may be configured as or otherwise support a means for transmitting, to a passive device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The communications manager **1320** may be configured as or otherwise support a means for receiving, from the passive device based on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, where the status is based on the first priority level, the second priority level or both, and where the second operation includes a second write operation, a second read operation, or both.

[0267] By including or configuring the communications manager **1320** in accordance with examples as described herein, the device **1305** (e.g., a processor controlling or otherwise coupled with the receiver **1310**, the transmitter **1315**, the communications manager **1320**, or a combination thereof) may support techniques that enable passive devices, such as RFID tags, to determine relative priorities of read and write operations that are to be performed at the passive devices, thereby improving the speed and efficiency with which passive devices are able to perform reading and writing operations. As such, techniques described herein may improve the efficiency and latency of services and applications associated with passive devices within a wireless communications system, such as location tracking services. Moreover, techniques described herein may enable querying devices to quickly and efficiently determine a status of respective passive devices (e.g., whether each passive device is available or busy), thereby facilitating the ability of querying devices to identify passive devices that may be used for wireless communications.

[0268] FIG. **14** shows a block diagram **1400** of a device **1405** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The device **1405** may be an example of aspects of a device **1305** or a querying device (e.g., UE **115**, network entity **105**) as described herein. The device **1405** may include a receiver **1410**, a transmitter **1415**, and a communications manager **1420**. The device **1405** may also include a processor. Each of these components may be in communication with one another (e.g., via one or more buses).

[0269] The receiver **1410** may provide a means for obtaining (e.g., receiving, determining, identifying) information such as user data, control information, or any combination thereof (e.g., I/Q samples, symbols, packets, protocol data units, service data units) associated with various channels (e.g., control channels, data channels, information channels, channels associated with a protocol stack). Information may be passed on to other components of the device **1405**. In some examples, the receiver **1410** may support obtaining information by receiving signals via one or more antennas. Additionally, or alternatively, the receiver **1410** may support obtaining information by receiving signals via one or more wired (e.g., electrical, fiber optic) interfaces, wireless interfaces, or any combination thereof.

[0270] The transmitter **1415** may provide a means for outputting (e.g., transmitting, providing, conveying, send-

ing) information generated by other components of the device **1405**. For example, the transmitter **1415** may output information such as user data, control information, or any combination thereof (e.g., I/Q samples, symbols, packets, protocol data units, service data units) associated with various channels (e.g., control channels, data channels, information channels, channels associated with a protocol stack). In some examples, the transmitter **1415** may support outputting information by transmitting signals via one or more antennas. Additionally, or alternatively, the transmitter **1415** may support outputting information by transmitting signals via one or more wired (e.g., electrical, fiber optic) interfaces, wireless interfaces, or any combination thereof. In some examples, the transmitter **1415** and the receiver **1410** may be co-located in a transceiver, which may include or be coupled with a modem.

[0271] The device **1405**, or various components thereof, may be an example of means for performing various aspects of techniques for prioritizing and handling conflicting read and write commands for passive devices as described herein. For example, the communications manager **1420** may include a query transmitting manager **1425** a status message receiving manager **1430**, or any combination thereof. The communications manager **1420** may be an example of aspects of a communications manager **1320** as described herein. In some examples, the communications manager **1420**, or various components thereof, may be configured to perform various operations (e.g., receiving, obtaining, monitoring, outputting, transmitting) using or otherwise in cooperation with the receiver **1410**, the transmitter **1415**, or both. For example, the communications manager **1420** may receive information from the receiver **1410**, send information to the transmitter **1415**, or be integrated in combination with the receiver **1410**, the transmitter **1415**, or both to obtain information, output information, or perform various other operations as described herein.

[0272] The communications manager **1420** may support wireless communication at a querying device in accordance with examples as disclosed herein. The query transmitting manager **1425** may be configured as or otherwise support a means for transmitting, to a passive device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The status message receiving manager **1430** may be configured as or otherwise support a means for receiving, from the passive device based on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, where the status is based on the first priority level, the second priority level or both, and where the second operation includes a second write operation, a second read operation, or both.

[0273] FIG. **15** shows a block diagram **1500** of a communications manager **1520** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The communications manager **1520** may be an example of aspects of a communications manager **1320**, a communications manager **1420**, or both, as described herein. The communications manager **1520**, or various components thereof, may be an example of means for performing various aspects of techniques for prioritizing and handling conflicting read and write commands for passive devices as described herein. For example, the communications manager **1520** may include a query transmitting manager **1525**, a status message receiving manager **1530**, a message receiving manager **1535**, a request transmitting manager **1540**, a prioritization manager **1545**, a control signaling transmitting manager **1550**, or any combination thereof. Each of these components may communicate, directly or indirectly, with one another (e.g., via one or more buses) which may include communications within a protocol layer of a protocol stack, communications associated with a logical channel of a protocol stack (e.g., between protocol layers of a protocol stack, within a device, component, or virtualized component associated with a network entity **105**, between devices, components, or virtualized components associated with a network entity **105**), or any combination thereof.

[0274] The communications manager **1520** may support wireless communication at a querying device in accordance with examples as disclosed herein. The query transmitting manager **1525** may be configured as or otherwise support a means for transmitting, to a passive device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The status message receiving manager **1530** may be configured as or otherwise support a means for receiving, from the passive device based on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, where the status is based on the first priority level, the second priority level or both, and where the second operation includes a second write operation, a second read operation, or both.

[0275] In some examples, the message receiving manager **1535** may be configured as or otherwise support a means for receiving, from the passive device, a second message including an indicator associated with a second querying device and a request to stop an operation to be performed at the passive device that was initiated by the second querying device. In some examples, the request transmitting manager **1540** may be configured as or otherwise support a means for transmitting, to the second querying device based on the second message, a third message indicating the request for the second querying device to stop the operation initiated by the second querying device.

[0276] In some examples, the query transmitting manager **1525** may be configured as or otherwise support a means for transmitting the first priority level via the first query, where receiving the message is based on the first priority level.

[0277] In some examples, where the first priority level is based on the first operation including the first write operation or the first read operation, and where the second priority level is based on the second operation including the second write operation or the second read operation. In some examples, where the first priority level is based on a first operation type associated with the first operation, and where the second priority level is based on a second operation type associated with the second operation.

[0278] In some examples, the control signaling transmitting manager **1550** may be configured as or otherwise support a means for transmitting, to the passive device, control signaling indicating a priority configuration usable for determining priority levels associated with operations to

be performed at the passive device, where receiving the message is based on the priority configuration.

[0279] In some examples, the status message receiving manager **1530** may be configured as or otherwise support a means for receiving the message from the passive device based on the first priority level being less than the second priority level, where the message includes an indication that the second operation has a higher priority than the first operation. In some examples, the status message receiving manager **1530** may be configured as or otherwise support a means for receiving the message from the passive device based on the first priority level being less than the second priority level, where the message includes an indication that the second operation has a higher priority than the first operation, where the second operation is associated with a second querying device.

[0280] In some examples, the request transmitting manager **1540** may be configured as or otherwise support a means for transmitting, to the passive device and in response to the message, a request for an identifier associated with the second querying device. In some examples, the message receiving manager **1535** may be configured as or otherwise support a means for receiving a second message from the passive device based on transmitting the request, the second message indicating the identifier associated with the second querying device. In some examples, the request transmitting manager **1540** may be configured as or otherwise support a means for transmitting a third message to the second querying device based on receiving the second message, the third message including a second request for the second querying device to stop the second operation.

[0281] In some examples, the query transmitting manager **1525** may be configured as or otherwise support a means for transmitting, to the passive device, a second query associated with the second operation, where the second query includes an instruction for the passive device to stop the first operation and to perform the second operation.

[0282] FIG. **16** shows a diagram of a system **1600** including a device **1605** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The device **1605** may be an example of or include the components of a device **1305**, a device **1405**, or a querying device (e.g., UE **115**, network entity **105**) as described herein. The device **1605** may communicate with one or more network entities **105**, one or more UEs **115**, or any combination thereof, which may include communications over one or more wired interfaces, over one or more wireless interfaces, or any combination thereof. The device **1605** may include components that support outputting and obtaining communications, such as a communications manager **1620**, a transceiver **1610**, an antenna **1615**, a memory **1625**, code **1630**, and a processor **1635**. These components may be in electronic communication or otherwise coupled (e.g., operatively, communicatively, functionally, electronically, electrically) via one or more buses (e.g., a bus **1640**).

[0283] The transceiver **1610** may support bi-directional communications via wired links, wireless links, or both as described herein. In some examples, the transceiver **1610** may include a wired transceiver and may communicate bi-directionally with another wired transceiver. Additionally, or alternatively, in some examples, the transceiver **1610** may include a wireless transceiver and may communicate bi-directionally with another wireless transceiver. In some examples, the device **1605** may include one or more antennas **1615**, which may be capable of transmitting or receiving wireless transmissions (e.g., concurrently). The transceiver **1610** may also include a modem to modulate signals, to provide the modulated signals for transmission (e.g., by one or more antennas **1615**, by a wired transmitter), to receive modulated signals (e.g., from one or more antennas **1615**, from a wired receiver), and to demodulate signals. The transceiver **1610**, or the transceiver **1610** and one or more antennas **1615** or wired interfaces, where applicable, may be an example of a transmitter **1315**, a transmitter **1415**, a receiver **1310**, a receiver **1410**, or any combination thereof or component thereof, as described herein. In some examples, the transceiver may be operable to support communications via one or more communications links (e.g., a communication link **125**, a backhaul communication link **120**, a midhaul communication link **162**, a fronthaul communication link **168**).

[0284] The memory **1625** may include RAM and ROM. The memory **1625** may store computer-readable, computer-executable code **1630** including instructions that, when executed by the processor **1635**, cause the device **1605** to perform various functions described herein. The code **1630** may be stored in a non-transitory computer-readable medium such as system memory or another type of memory. In some cases, the code **1630** may not be directly executable by the processor **1635** but may cause a computer (e.g., when compiled and executed) to perform functions described herein. In some cases, the memory **1625** may contain, among other things, a BIOS which may control basic hardware or software operation such as the interaction with peripheral components or devices.

[0285] The processor **1635** may include an intelligent hardware device (e.g., a general-purpose processor, a DSP, an ASIC, a CPU, an FPGA, a microcontroller, a programmable logic device, discrete gate or transistor logic, a discrete hardware component, or any combination thereof). In some cases, the processor **1635** may be configured to operate a memory array using a memory controller. In some other cases, a memory controller may be integrated into the processor **1635**. The processor **1635** may be configured to execute computer-readable instructions stored in a memory (e.g., the memory **1625**) to cause the device **1605** to perform various functions (e.g., functions or tasks supporting techniques for prioritizing and handling conflicting read and write commands for passive devices). For example, the device **1605** or a component of the device **1605** may include a processor **1635** and memory **1625** coupled with the processor **1635**, the processor **1635** and memory **1625** configured to perform various functions described herein. The processor **1635** may be an example of a cloud-computing platform (e.g., one or more physical nodes and supporting software such as operating systems, virtual machines, or container instances) that may host the functions (e.g., by executing code **1630**) to perform the functions of the device **1605**.

[0286] In some examples, a bus **1640** may support communications of (e.g., within) a protocol layer of a protocol stack. In some examples, a bus **1640** may support communications associated with a logical channel of a protocol stack (e.g., between protocol layers of a protocol stack), which may include communications performed within a component of the device **1605**, or between different com-

ponents of the device **1605** that may be co-located or located in different locations (e.g., where the device **1605** may refer to a system in which one or more of the communications manager **1620**, the transceiver **1610**, the memory **1625**, the code **1630**, and the processor **1635** may be located in one of the different components or divided between different components).

[0287] In some examples, the communications manager **1620** may manage aspects of communications with a core network **130** (e.g., via one or more wired or wireless backhaul links). For example, the communications manager **1620** may manage the transfer of data communications for client devices, such as one or more UEs **115**. In some examples, the communications manager **1620** may manage communications with other network entities **105**, and may include a controller or scheduler for controlling communications with UEs **115** in cooperation with other network entities **105**. In some examples, the communications manager **1620** may support an X2 interface within an LTE/LTE-A wireless communications network technology to provide communication between network entities **105**.

[0288] The communications manager **1620** may support wireless communication at a querying device in accordance with examples as disclosed herein. For example, the communications manager **1620** may be configured as or otherwise support a means for transmitting, to a passive device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The communications manager **1620** may be configured as or otherwise support a means for receiving, from the passive device based on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, where the status is based on the first priority level, the second priority level or both, and where the second operation includes a second write operation, a second read operation, or both.

[0289] By including or configuring the communications manager **1620** in accordance with examples as described herein, the device **1605** may support techniques that enable passive devices, such as RFID tags, to determine relative priorities of read and write operations that are to be performed at the passive devices, thereby improving the speed and efficiency with which passive devices are able to perform reading and writing operations. As such, techniques described herein may improve the efficiency and latency of services and applications associated with passive devices within a wireless communications system, such as location tracking services. Moreover, techniques described herein may enable querying devices to quickly and efficiently determine a status of respective passive devices (e.g., whether each passive device is available or busy), thereby facilitating the ability of querying devices to identify passive devices that may be used for wireless communications.

[0290] In some examples, the communications manager **1620** may be configured to perform various operations (e.g., receiving, obtaining, monitoring, outputting, transmitting) using or otherwise in cooperation with the transceiver **1610**, the one or more antennas **1615** (e.g., where applicable), or any combination thereof. Although the communications manager **1620** is illustrated as a separate component, in some examples, one or more functions described with reference to the communications manager **1620** may be supported by or performed by the processor **1635**, the memory **1625**, the code **1630**, the transceiver **1610**, or any combination thereof. For example, the code **1630** may include instructions executable by the processor **1635** to cause the device **1605** to perform various aspects of techniques for prioritizing and handling conflicting read and write commands for passive devices as described herein, or the processor **1635** and the memory **1625** may be otherwise configured to perform or support such operations.

[0291] FIG. **17** shows a flowchart illustrating a method **1700** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The operations of the method **1700** may be implemented by a UE or its components as described herein. For example, the operations of the method **1700** may be performed by a UE **115** as described with reference to FIGS. **1** through **12**. In some examples, a UE may execute a set of instructions to control the functional elements of the UE to perform the described functions. Additionally, or alternatively, the UE may perform aspects of the described functions using special-purpose hardware.

[0292] At **1705**, the method may include receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The operations of **1705** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1705** may be performed by a query receiving manager **1125** as described with reference to FIG. **11**.

[0293] At **1710**, the method may include receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both. The operations of **1710** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1710** may be performed by a query receiving manager **1125** as described with reference to FIG. **11**.

[0294] At **1715**, the method may include transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both. The operations of **1715** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1715** may be performed by a status message transmitting manager **1130** as described with reference to FIG. **11**.

[0295] At **1720**, the method may include performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message. The operations of **1720** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1720** may be performed by an operation manager **1135** as described with reference to FIG. **11**.

[0296] FIG. **18** shows a flowchart illustrating a method **1800** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The operations of the method **1800** may be imple-

mented by a UE or its components as described herein. For example, the operations of the method **1800** may be performed by a UE **115** as described with reference to FIGS. **1** through **12**. In some examples, a UE may execute a set of instructions to control the functional elements of the UE to perform the described functions. Additionally, or alternatively, the UE may perform aspects of the described functions using special-purpose hardware.

[0297] At **1805**, the method may include receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The operations of **1805** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1805** may be performed by a query receiving manager **1125** as described with reference to FIG. **11**.

[0298] At **1810**, the method may include receiving the first priority level via the first query. The operations of **1810** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1810** may be performed by a query receiving manager **1125** as described with reference to FIG. **11**.

[0299] At **1815**, the method may include receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both. The operations of **1815** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1815** may be performed by a query receiving manager **1125** as described with reference to FIG. **11**.

[0300] At **1820**, the method may include receiving the second priority level via the second query. The operations of **1820** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1820** may be performed by a query receiving manager **1125** as described with reference to FIG. **11**.

[0301] At **1825**, the method may include transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both, where transmitting the message is based on the first priority level, the second priority level, or both. The operations of **1825** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1825** may be performed by a status message transmitting manager **1130** as described with reference to FIG. **11**.

[0302] At **1830**, the method may include performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message. The operations of **1830** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1830** may be performed by an operation manager **1135** as described with reference to FIG. **11**.

[0303] FIG. **19** shows a flowchart illustrating a method **1900** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The operations of the method **1900** may be implemented by a UE or its components as described herein. For example, the operations of the method **1900** may be performed by a UE **115** as described with reference to FIGS. **1** through **12**. In some examples, a UE may execute a set of instructions to control the functional elements of the UE to perform the described functions. Additionally, or alternatively, the UE may perform aspects of the described functions using special-purpose hardware.

[0304] At **1905**, the method may include receiving, from the first querying device, the second querying device, or an additional wireless device, control signaling indicating a priority configuration usable for determining priority levels associated with operations to be performed at the passive device. The operations of **1905** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1905** may be performed by a control signaling receiving manager **1140** as described with reference to FIG. **11**.

[0305] At **1910**, the method may include receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The operations of **1910** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1910** may be performed by a query receiving manager **1125** as described with reference to FIG. **11**.

[0306] At **1915**, the method may include receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, where the second operation is associated with a second priority level and includes a second write operation, a second read operation, or both. The operations of **1915** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1915** may be performed by a query receiving manager **1125** as described with reference to FIG. **11**.

[0307] At **1920**, the method may include determining the first priority level, the second priority level, or both, in accordance with the priority configuration. The operations of **1920** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1920** may be performed by a prioritization manager **1145** as described with reference to FIG. **11**.

[0308] At **1925**, the method may include transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both. The operations of **1925** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **1925** may be performed by a status message transmitting manager **1130** as described with reference to FIG. **11**.

[0309] At **1930**, the method may include performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based on transmitting the message, where transmitting the message, performing one of the first operation or the second operation, or both, is based on determining the first priority level, the second priority level, or both. The operations of **1930** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the opera-

tions of **1930** may be performed by an operation manager **1135** as described with reference to FIG. **11**.

[0310] FIG. **20** shows a flowchart illustrating a method **2000** that supports techniques for prioritizing and handling conflicting read and write commands for passive devices in accordance with one or more aspects of the present disclosure. The operations of the method **2000** may be implemented by a network entity or its components as described herein. For example, the operations of the method **2000** may be performed by a network entity as described with reference to FIGS. **1** through **8** and **13** through **16**. In some examples, a network entity may execute a set of instructions to control the functional elements of the network entity to perform the described functions. Additionally, or alternatively, the network entity may perform aspects of the described functions using special-purpose hardware.

[0311] At **2005**, the method may include transmitting, to a passive device, a first query associated with a first operation to be performed at the passive device, where the first operation is associated with a first priority level and includes a first write operation, a first read operation, or both. The operations of **2005** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **2005** may be performed by a query transmitting manager **1525** as described with reference to FIG. **15**.

[0312] At **2010**, the method may include receiving, from the passive device based on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, where the status is based on the first priority level, the second priority level or both, and where the second operation includes a second write operation, a second read operation, or both. The operations of **2010** may be performed in accordance with examples as disclosed herein. In some examples, aspects of the operations of **2010** may be performed by a status message receiving manager **1530** as described with reference to FIG. **15**.

[0313] The following provides an overview of aspects of the present disclosure:

[0314] Aspect 1: A method for wireless communication at a passive device, comprising: receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, wherein the first operation is associated with a first priority level and comprises a first write operation, a first read operation, or both; receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, wherein the second operation is associated with a second priority level and comprises a second write operation, a second read operation, or both; transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both; and performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based at least in part on transmitting the message.

[0315] Aspect 2: The method of aspect 1, further comprising: receiving the first priority level via the first query; and receiving the second priority level via the second query, wherein transmitting the message is based at least in part on the first priority level, the second priority level, or both.

[0316] Aspect 3: The method of any of aspects 1 through 2, wherein the first priority level is based at least in part on the first operation comprising the first write operation, and the second priority level is based at least in part on the second operation comprising the second read operation.

[0317] Aspect 4: The method of aspect 3, further comprising: prioritizing the first operation over the second read operation based at least in part on the first priority level being greater than the second priority level, wherein transmitting the message is based at least in part on the prioritizing, and wherein performing one of the first operation or the second operation comprises performing the first operation based at least in part on the prioritizing.

[0318] Aspect 5: The method of any of aspects 1 through 4, further comprising: receiving, from the first querying device, the second querying device, or an additional wireless device, control signaling indicating a priority configuration usable for determining priority levels associated with operations to be performed at the passive device; and determining the first priority level, the second priority level, or both, in accordance with the priority configuration, wherein transmitting the message, performing one of the first operation or the second operation, or both, is based at least in part on determining the first priority level, the second priority level, or both.

[0319] Aspect 6: The method of aspect 5, wherein the priority configuration includes one or more rules, one or more conditions, or both, for determining priority levels associated with operations to be performed at the passive device, determining the first priority level, the second priority level, or both, is based at least in part on the one or more rules, the one or more conditions, or both.

[0320] Aspect 7: The method of any of aspects 1 through 6, wherein the first priority level is based at least in part on a first operation type associated with the first operation, and the second priority level is based at least in part on a second operation type associated with the second operation.

[0321] Aspect 8: The method of any of aspects 1 through 7, wherein the second query is received from the second querying device, and the first priority level is based at least in part on a first identifier associated with the first querying device, and the second priority level is based at least in part on a second identifier associated with the second querying device.

[0322] Aspect 9: The method of any of aspects 1 through 8, further comprising: transmitting the message to at least the second querying device based at least in part on the first priority level being greater than the second priority level, wherein the message comprises an indication that the passive device is busy performing the first operation.

[0323] Aspect 10: The method of any of aspects 1 through 9, further comprising: transmitting the message to at least the first querying device based at least in part on the first priority level being less than the second priority level, wherein the message comprises an indication that the passive device has received the second query for the second operation having a higher priority than the first operation.

[0324] Aspect 11: The method of any of aspects 1 through 10, further comprising: transmitting, via the message, an indication of the first priority level, the second priority level, a first operation type associated with the first operation, a second operation type associated with the second operation, a first identifier associated with the first querying device, a

second identifier associated with the second querying device, or any combination thereof.

[0325] Aspect 12: The method of any of aspects 1 through 11, wherein the second query is received from the first querying device, the method further comprising: receiving, via the second query, an instruction to stop the first operation and to perform the second operation, wherein the passive device performs the second operation based at least in part on the instruction.

[0326] Aspect 13: The method of any of aspects 1 through 12, further comprising: transmitting a plurality of messages in accordance with a periodicity, the plurality of messages associated with a queue of operations to be performed by the passive device, the plurality of messages including the message indicating the status of the first operation, the second operation, or both.

[0327] Aspect 14: The method of aspect 13, further comprising: receiving a plurality of signals in accordance with the periodicity, wherein transmitting the plurality of messages is based at least in part on receiving the plurality of signals.

[0328] Aspect 15: The method of any of aspects 1 through 14, wherein the message comprises an indication that the passive device is busy performing the first operation, the method further comprising: receiving, from the second querying device and in response to the message, a request for an identifier associated with the first querying device; and transmitting a second message to the second querying device based at least in part on receiving the request, the second message indicating the identifier associated with the first querying device.

[0329] Aspect 16: The method of any of aspects 1 through 15, wherein performing one of the first operation or the second operation comprises performing the first operation at a first time, the method further comprising: performing the second operation at a second time subsequent to the first time based at least in part on the second priority level being less than the first priority level.

[0330] Aspect 17: The method of any of aspects 1 through 16, wherein performing one of the first operation or the second operation comprises performing one of the first write operation or the second write operation, wherein performing one of the first write operation or the second write operation comprises: adjusting one or more operational parameters at the passive device.

[0331] Aspect 18: The method of any of aspects 1 through 17, wherein performing one of the first operation or the second operation comprises performing one of the first read operation or the second read operation, wherein performing one of the first read operation or the second read operation comprises: transmitting a data message to the first querying device, the second querying device, or both.

[0332] Aspect 19: The method of any of aspects 1 through 18, wherein the passive device comprises a radio frequency identifier tag, a passive component of a wireless device, or both, and the first querying device, the second querying device, or both, comprise a UE, a network entity, or both.

[0333] Aspect 20: A method for wireless communication at a querying device, comprising: transmitting, to a passive device, a first query associated with a first operation to be performed at the passive device, wherein the first operation is associated with a first priority level and comprises a first write operation, a first read operation, or both; and receiving, from the passive device based at least in part on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, wherein the status is based at least in part on the first priority level, the second priority level or both, and wherein the second operation comprises a second write operation, a second read operation, or both.

[0334] Aspect 21: The method of aspect 20, further comprising: receiving, from the passive device, a second message comprising an indicator associated with a second querying device and a request to stop an operation to be performed at the passive device that was initiated by the second querying device; and transmitting, to the second querying device based at least in part on the second message, a third message indicating the request for the second querying device to stop the operation initiated by the second querying device.

[0335] Aspect 22: The method of any of aspects 20 through 21, further comprising: transmitting the first priority level via the first query, wherein receiving the message is based at least in part on the first priority level.

[0336] Aspect 23: The method of any of aspects 20 through 22, wherein the first priority level is based at least in part on the first operation comprising the first write operation or the first read operation, and wherein the second priority level is based at least in part on the second operation comprising the second write operation or the second read operation, or wherein the first priority level is based at least in part on a first operation type associated with the first operation, and wherein the second priority level is based at least in part on a second operation type associated with the second operation

[0337] Aspect 24: The method of any of aspects 20 through 23, further comprising: transmitting, to the passive device, control signaling indicating a priority configuration usable for determining priority levels associated with operations to be performed at the passive device, wherein receiving the message is based at least in part on the priority configuration.

[0338] Aspect 25: The method of any of aspects 20 through 24, further comprising: receiving the message from the passive device based at least in part on the first priority level being less than the second priority level, wherein the message comprises an indication that the second operation has a higher priority than the first operation.

[0339] Aspect 26: The method of any of aspects 20 through 25, further comprising: receiving the message from the passive device based at least in part on the first priority level being less than the second priority level, wherein the message comprises an indication that the second operation has a higher priority than the first operation, wherein the second operation is associated with a second querying device.

[0340] Aspect 27: The method of aspect 26, further comprising: transmitting, to the passive device and in response to the message, a request for an identifier associated with the second querying device; receiving a second message from the passive device based at least in part on transmitting the request, the second message indicating the identifier associated with the second querying device; and transmitting a third message to the second querying device based at least in part on receiving the second message, the third message comprising a second request for the second querying device to stop the second operation.

[0341] Aspect 28: The method of any of aspects 20 through 27, further comprising: transmitting, to the passive device, a second query associated with the second operation, wherein the second query comprises an instruction for the passive device to stop the first operation and to perform the second operation.

[0342] Aspect 29: An apparatus for wireless communication at a passive device, comprising a processor; memory coupled with the processor; and instructions stored in the memory and executable by the processor to cause the apparatus to perform a method of any of aspects 1 through 19.

[0343] Aspect 30: An apparatus for wireless communication at a passive device, comprising at least one means for performing a method of any of aspects 1 through 19.

[0344] Aspect 31: A non-transitory computer-readable medium storing code for wireless communication at a passive device, the code comprising instructions executable by a processor to perform a method of any of aspects 1 through 19.

[0345] Aspect 32: An apparatus for wireless communication at a querying device, comprising a processor; memory coupled with the processor; and instructions stored in the memory and executable by the processor to cause the apparatus to perform a method of any of aspects 20 through 28.

[0346] Aspect 33: An apparatus for wireless communication at a querying device, comprising at least one means for performing a method of any of aspects 20 through 28.

[0347] Aspect 34: A non-transitory computer-readable medium storing code for wireless communication at a querying device, the code comprising instructions executable by a processor to perform a method of any of aspects 20 through 28.

[0348] It should be noted that the methods described herein describe possible implementations, and that the operations and the steps may be rearranged or otherwise modified and that other implementations are possible. Further, aspects from two or more of the methods may be combined.

[0349] Although aspects of an LTE, LTE-A, LTE-A Pro, or NR system may be described for purposes of example, and LTE, LTE-A, LTE-A Pro, or NR terminology may be used in much of the description, the techniques described herein are applicable beyond LTE, LTE-A, LTE-A Pro, or NR networks. For example, the described techniques may be applicable to various other wireless communications systems such as Ultra Mobile Broadband (UMB), Institute of Electrical and Electronics Engineers (IEEE) 802.11 (Wi-Fi), IEEE 802.16 (WiMAX), IEEE 802.20, Flash-OFDM, as well as other systems and radio technologies not explicitly mentioned herein.

[0350] Information and signals described herein may be represented using any of a variety of different technologies and techniques. For example, data, instructions, commands, information, signals, bits, symbols, and chips that may be referenced throughout the description may be represented by voltages, currents, electromagnetic waves, magnetic fields or particles, optical fields or particles, or any combination thereof.

[0351] The various illustrative blocks and components described in connection with the disclosure herein may be implemented or performed using a general-purpose processor, a DSP, an ASIC, a CPU, an FPGA or other programmable logic device, discrete gate or transistor logic, discrete hardware components, or any combination thereof designed to perform the functions described herein. A general-purpose processor may be a microprocessor but, in the alternative, the processor may be any processor, controller, microcontroller, or state machine. A processor may also be implemented as a combination of computing devices (e.g., a combination of a DSP and a microprocessor, multiple microprocessors, one or more microprocessors in conjunction with a DSP core, or any other such configuration).

[0352] The functions described herein may be implemented using hardware, software executed by a processor, firmware, or any combination thereof. If implemented using software executed by a processor, the functions may be stored as or transmitted using one or more instructions or code of a computer-readable medium. Other examples and implementations are within the scope of the disclosure and appended claims. For example, due to the nature of software, functions described herein may be implemented using software executed by a processor, hardware, firmware, hardwiring, or combinations of any of these. Features implementing functions may also be physically located at various positions, including being distributed such that portions of functions are implemented at different physical locations.

[0353] Computer-readable media includes both non-transitory computer storage media and communication media including any medium that facilitates transfer of a computer program from one location to another. A non-transitory storage medium may be any available medium that may be accessed by a general-purpose or special-purpose computer. By way of example, and not limitation, non-transitory computer-readable media may include RAM, ROM, electrically erasable programmable ROM (EEPROM), flash memory, compact disk (CD) ROM or other optical disk storage, magnetic disk storage or other magnetic storage devices, or any other non-transitory medium that may be used to carry or store desired program code means in the form of instructions or data structures and that may be accessed by a general-purpose or special-purpose computer, or a general-purpose or special-purpose processor. Also, any connection is properly termed a computer-readable medium. For example, if the software is transmitted from a website, server, or other remote source using a coaxial cable, fiber optic cable, twisted pair, digital subscriber line (DSL), or wireless technologies such as infrared, radio, and microwave, then the coaxial cable, fiber optic cable, twisted pair, DSL, or wireless technologies such as infrared, radio, and microwave are included in the definition of computer-readable medium. Disk and disc, as used herein, include CD, laser disc, optical disc, digital versatile disc (DVD), floppy disk and Blu-ray disc. Disks may reproduce data magnetically, and discs may reproduce data optically using lasers. Combinations of the above are also included within the scope of computer-readable media.

[0354] As used herein, including in the claims, "or" as used in a list of items (e.g., a list of items prefaced by a phrase such as "at least one of" or "one or more of") indicates an inclusive list such that, for example, a list of at least one of A, B, or C means A or B or C or AB or AC or BC or ABC (i.e., A and B and C). Also, as used herein, the phrase "based on" shall not be construed as a reference to a closed set of conditions. For example, an example step that is described as "based on condition A" may be based on both a condition A and a condition B without departing from the

scope of the present disclosure. In other words, as used herein, the phrase "based on" shall be construed in the same manner as the phrase "based at least in part on."

[0355] The term "determine" or "determining" encompasses a variety of actions and, therefore, "determining" can include calculating, computing, processing, deriving, investigating, looking up (such as via looking up in a table, a database or another data structure), ascertaining and the like. Also, "determining" can include receiving (e.g., receiving information), accessing (e.g., accessing data stored in memory) and the like. Also, "determining" can include resolving, obtaining, selecting, choosing, establishing, and other such similar actions.

[0356] In the appended figures, similar components or features may have the same reference label. Further, various components of the same type may be distinguished by following the reference label by a dash and a second label that distinguishes among the similar components. If just the first reference label is used in the specification, the description is applicable to any one of the similar components having the same first reference label irrespective of the second reference label, or other subsequent reference label.

[0357] The description set forth herein, in connection with the appended drawings, describes example configurations and does not represent all the examples that may be implemented or that are within the scope of the claims. The term "example" used herein means "serving as an example, instance, or illustration," and not "preferred" or "advantageous over other examples." The detailed description includes specific details for the purpose of providing an understanding of the described techniques. These techniques, however, may be practiced without these specific details. In some instances, known structures and devices are shown in block diagram form in order to avoid obscuring the concepts of the described examples.

[0358] The description herein is provided to enable a person having ordinary skill in the art to make or use the disclosure. Various modifications to the disclosure will be apparent to a person having ordinary skill in the art, and the generic principles defined herein may be applied to other variations without departing from the scope of the disclosure. Thus, the disclosure is not limited to the examples and designs described herein but is to be accorded the broadest scope consistent with the principles and novel features disclosed herein.

What is claimed is:

1. An apparatus for wireless communication at a passive device, comprising:

a processor;

memory coupled with the processor; and

instructions stored in the memory and executable by the processor to cause the apparatus to:

receive, from a first querying device, a first query associated with a first operation to be performed at the passive device, wherein the first operation is associated with a first priority level and comprises a first write operation, a first read operation, or both;

receive, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, wherein the second operation is associated with a second priority level and comprises a second write operation, a second read operation, or both;

transmit, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both; and

perform one of the first operation or the second operation in accordance with the first priority level and the second priority level and based at least in part on transmitting the message.

2. The apparatus of claim **1**, wherein the instructions are further executable by the processor to cause the apparatus to:

receive the first priority level via the first query; and

receive the second priority level via the second query, wherein transmitting the message is based at least in part on the first priority level, the second priority level, or both.

3. The apparatus of claim **1**, wherein the first priority level is based at least in part on the first operation comprising the first write operation, and wherein the second priority level is based at least in part on the second operation comprising the second read operation.

4. The apparatus of claim **3**, wherein the instructions are further executable by the processor to cause the apparatus to:

prioritize the first operation over the second read operation based at least in part on the first priority level being greater than the second priority level, wherein transmitting the message is based at least in part on the prioritizing, and wherein performing one of the first operation or the second operation comprises performing the first operation based at least in part on the prioritizing.

5. The apparatus of claim **1**, wherein the instructions are further executable by the processor to cause the apparatus to:

receive, from the first querying device, the second querying device, or an additional wireless device, control signaling indicating a priority configuration usable for determining priority levels associated with operations to be performed at the passive device; and

determine the first priority level, the second priority level, or both, in accordance with the priority configuration, wherein transmitting the message, performing one of the first operation or the second operation, or both, is based at least in part on determining the first priority level, the second priority level, or both.

6. The apparatus of claim **5**, wherein the priority configuration includes one or more rules, one or more conditions, or both, for determining priority levels associated with operations to be performed at the passive device, wherein determining the first priority level, the second priority level, or both, is based at least in part on the one or more rules, the one or more conditions, or both.

7. The apparatus of claim **1**, wherein the first priority level is based at least in part on a first operation type associated with the first operation, and wherein the second priority level is based at least in part on a second operation type associated with the second operation.

8. The apparatus of claim **1**, wherein the second query is received from the second querying device, and wherein the first priority level is based at least in part on a first identifier associated with the first querying device, and wherein the second priority level is based at least in part on a second identifier associated with the second querying device.

9. The apparatus of claim **1**, wherein the instructions are further executable by the processor to cause the apparatus to:

transmit the message to at least the second querying device based at least in part on the first priority level being greater than the second priority level, wherein the message comprises an indication that the passive device is busy performing the first operation.

10. The apparatus of claim **1**, wherein the instructions are further executable by the processor to cause the apparatus to:

transmit the message to at least the first querying device based at least in part on the first priority level being less than the second priority level, wherein the message comprises an indication that the passive device has received the second query for the second operation having a higher priority than the first operation.

11. The apparatus of claim **1**, wherein the instructions are further executable by the processor to cause the apparatus to:

transmit, via the message, an indication of the first priority level, the second priority level, a first operation type associated with the first operation, a second operation type associated with the second operation, a first identifier associated with the first querying device, a second identifier associated with the second querying device, or any combination thereof.

12. The apparatus of claim **1**, wherein the second query is received from the first querying device, and the instructions are further executable by the processor to cause the apparatus to:

receive, via the second query, an instruction to stop the first operation and to perform the second operation, wherein the passive device performs the second operation based at least in part on the instruction.

13. The apparatus of claim **1**, wherein the instructions are further executable by the processor to cause the apparatus to:

transmit a plurality of messages in accordance with a periodicity, the plurality of messages associated with a queue of operations to be performed by the passive device, the plurality of messages including the message indicating the status of the first operation, the second operation, or both.

14. The apparatus of claim **13**, wherein the instructions are further executable by the processor to cause the apparatus to:

receive a plurality of signals in accordance with the periodicity, wherein transmitting the plurality of messages is based at least in part on receiving the plurality of signals.

15. The apparatus of claim **1**, wherein the message comprises an indication that the passive device is busy performing the first operation, and the instructions are further executable by the processor to cause the apparatus to:

receive, from the second querying device and in response to the message, a request for an identifier associated with the first querying device; and

transmit a second message to the second querying device based at least in part on receiving the request, the second message indicating the identifier associated with the first querying device.

16. The apparatus of claim **1**, wherein performing one of the first operation or the second operation comprises performing the first operation at a first time, and the instructions are further executable by the processor to cause the apparatus to:

perform the second operation at a second time subsequent to the first time based at least in part on the second priority level being less than the first priority level.

17. The apparatus of claim **1**, wherein the instructions to perform one of the first write operation or the second write operation are executable by the processor to cause the apparatus to:

adjust one or more operational parameters at the passive device.

18. The apparatus of claim **1**, wherein the instructions to perform one of the first read operation or the second read operation are executable by the processor to cause the apparatus to:

transmit a data message to the first querying device, the second querying device, or both.

19. The apparatus of claim **1**, wherein the passive device comprises a radio frequency identifier tag, a passive component of a wireless device, or both, and wherein the first querying device, the second querying device, or both, comprise a user equipment (UE), a network entity, or both.

20. An apparatus for wireless communication at a querying device, comprising:

a processor;

memory coupled with the processor; and

instructions stored in the memory and executable by the processor to cause the apparatus to:

transmit, to a passive device, a first query associated with a first operation to be performed at the passive device, wherein the first operation is associated with a first priority level and comprises a first write operation, a first read operation, or both; and

receive, from the passive device based at least in part on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, wherein the status is based at least in part on the first priority level, the second priority level or both, and wherein the second operation comprises a second write operation, a second read operation, or both.

21. The apparatus of claim **20**, wherein the instructions are further executable by the processor to cause the apparatus to:

receive, from the passive device, a second message comprising an indicator associated with a second querying device and a request to stop an operation to be performed at the passive device that was initiated by the second querying device; and

transmitting, to the second querying device based at least in part on the second message, a third message indicating the request for the second querying device to stop the operation initiated by the second querying device.

22. The apparatus of claim **20**, wherein the instructions are further executable by the processor to cause the apparatus to:

transmit the first priority level via the first query, wherein receiving the message is based at least in part on the first priority level.

23. The apparatus of claim **20**,

wherein the first priority level is based at least in part on the first operation comprising the first write operation or the first read operation, and wherein the second priority level is based at least in part on the second operation comprising the second write operation or the second read operation, or

wherein the first priority level is based at least in part on a first operation type associated with the first operation,

and wherein the second priority level is based at least in part on a second operation type associated with the second operation.

24. The apparatus of claim **20**, wherein the instructions are further executable by the processor to cause the apparatus to:

transmit, to the passive device, control signaling indicating a priority configuration usable for determining priority levels associated with operations to be performed at the passive device, wherein receiving the message is based at least in part on the priority configuration.

25. The apparatus of claim **20**, wherein the instructions are further executable by the processor to cause the apparatus to:

receive the message from the passive device based at least in part on the first priority level being less than the second priority level, wherein the message comprises an indication that the second operation has a higher priority than the first operation.

26. The apparatus of claim **20**, wherein the instructions are further executable by the processor to cause the apparatus to:

receive the message from the passive device based at least in part on the first priority level being less than the second priority level, wherein the message comprises an indication that the second operation has a higher priority than the first operation, wherein the second operation is associated with a second querying device.

27. The apparatus of claim **26**, wherein the instructions are further executable by the processor to cause the apparatus to:

transmit, to the passive device and in response to the message, a request for an identifier associated with the second querying device;

receive a second message from the passive device based at least in part on transmitting the request, the second message indicating the identifier associated with the second querying device; and

transmit a third message to the second querying device based at least in part on receiving the second message, the third message comprising a second request for the second querying device to stop the second operation.

28. The apparatus of claim **20**, wherein the instructions are further executable by the processor to cause the apparatus to:

transmit, to the passive device, a second query associated with the second operation, wherein the second query comprises an instruction for the passive device to stop the first operation and to perform the second operation.

29. A method for wireless communication at a passive device, comprising:

receiving, from a first querying device, a first query associated with a first operation to be performed at the passive device, wherein the first operation is associated with a first priority level and comprises a first write operation, a first read operation, or both;

receiving, from the first querying device or a second querying device, a second query associated with a second operation to be performed at the passive device, wherein the second operation is associated with a second priority level and comprises a second write operation, a second read operation, or both;

transmitting, to the first querying device, the second querying device, or both, a message indicating a status of the first operation, the second operation, or both; and

performing one of the first operation or the second operation in accordance with the first priority level and the second priority level and based at least in part on transmitting the message.

30. A method for wireless communication at a querying device, comprising:

transmitting, to a passive device, a first query associated with a first operation to be performed at the passive device, wherein the first operation is associated with a first priority level and comprises a first write operation, a first read operation, or both; and

receiving, from the passive device based at least in part on the first query, a message indicating a status of the first operation, a second operation associated with a second priority level, or both, wherein the status is based at least in part on the first priority level, the second priority level or both, and wherein the second operation comprises a second write operation, a second read operation, or both.

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