

method for determining a data buffer status. The method includes: A first multi-link device MLD receives seventh indication information from a second MLD, where the seventh indication information is used to indicate that bufferable data corresponding to a fifth data type is not buffered in the second MLD, and the fifth data type is any one of data types supported by the first MLD; and the first MLD determines, based on the seventh indication information, that the bufferable data corresponding to the fifth data type is not buffered in the second MLD.

[0050] In this technical solution, when the bufferable data corresponding to the fifth data type is not buffered in the second MLD, the second MLD cannot send the bufferable data corresponding to the fifth data type to the ~~second~~first MLD. The first MLD cannot determine, based on a "more data (More Data)" subfield in the bufferable data corresponding to the fifth data type, that the bufferable data corresponding to the fifth data type is not buffered in the second MLD, either. In this case, the first MLD may determine, based on the seventh indication information from the second MLD, that the bufferable data corresponding to the fifth data type is not buffered in the second MLD.

[0051] In an implementation, the first MLD has a plurality of stations. The method further includes: The first MLD determines an operating status of a station corresponding to a third link in the plurality of stations based on that the bufferable data corresponding to the fifth data type is not buffered in the second MLD, where the fifth data type is mapped to the third link, and the operating status is an active state or a doze state.

[0052] In this technical solution, a more appropriate operating status is determined for the station corresponding to the third link based on that the bufferable data corresponding to the fifth data type is not buffered in the second MLD.

[0053] According to an eighth aspect, an embodiment of this application provides still another method for determining a data buffer status. The method includes: A second multi-link device MLD determines that bufferable data corresponding to a fifth data type is not buffered in the second MLD, where the fifth data type is any one of data types supported by a first MLD; and the second MLD sends seventh indication information to the first MLD, where the seventh indication information is used to indicate that the bufferable data corresponding to the fifth data type is not buffered in the second MLD.

[0054] In this technical solution, when the bufferable data corresponding to the fifth data type is not buffered in the second MLD, the second MLD cannot send the bufferable data corresponding to the fifth data type to the ~~second~~first MLD; and cannot indicate, by using a More Data subfield in

[0073] According to a fifteenth aspect, an embodiment of this application provides a communications apparatus. The communications apparatus has a part or all of functions of implementing the first MLD in the method example according to the first aspect, the third aspect, the fifth aspect, the seventh aspect, the ninth aspect, the eleventh aspect, or the thirteenth aspect.

5 For example, the communications apparatus may have functions of implementing a part or all of the embodiments of this application, or may have a function of independently implementing any embodiment of this application. The function may be implemented by hardware, or may be implemented by hardware executing corresponding software. The hardware or the software includes one or more units or modules corresponding to the function.

10 **[0074]** In an implementation, a structure of the communications apparatus may include a processing unit and a communications unit. The processing unit is configured to support the communications apparatus in performing a corresponding function in the foregoing method. The communications unit is configured to support communication between the communications apparatus and another device. The communications apparatus may further include a storage unit.

15 The storage unit is configured to be coupled to the processing unit and a communications~~sending~~ unit, and the storage unit stores a computer program and data that are necessary for the communications apparatus.

[0075] In an implementation, when the communications apparatus has a part or all of functions of implementing the first MLD in the method example according to the first aspect, the
20 communications apparatus includes:

a communications unit, configured to receive first indication information from a second MLD, where the first indication information is used to indicate a buffer status of bufferable data that corresponds to an association identifier of the communications apparatus and that is in the second MLD; and

25 a processing unit, configured to determine, based on the first indication information and a correspondence between the association identifier of a first MLD and a data type supported by the first MLD, a buffer status of bufferable data that corresponds to the at least one data type and that is in the second MLD.

[0076] For example, the processing unit may be a processor, the communications unit may be
30 a transceiver or a communications interface, and the storage unit may be a memory.

[0077] In an implementation, when the communications apparatus has a part or all of functions

a processing unit, configured to determine, based on the tenth indication information, the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link and that is in the second MLD.

[0094] For example, the processing unit may be a processor, the communications unit may be a transceiver or a communications interface, and the storage unit may be a memory.

[0095] In an implementation, when the communications apparatus has a part or all of functions of implementing the first MLD in the method example according to the thirteenth aspect, the communications apparatus includes:

a transceiver, configured to receive tenth indication information from a second MLD, where the tenth indication information is used to indicate a buffer status of bufferable data that corresponds to at least one data type mapped to at least one link corresponding to the communications apparatus and that is in the second MLD; and

a processor, configured to determine, based on the tenth indication information, the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link and that is in the second MLD.

[0096] According to a sixteenth aspect, an embodiment of this application provides another communications apparatus. The communications apparatus has a part or all of functions of implementing the second MLD in the method example according to the second aspect, the fourth aspect, the sixth aspect, the eighth aspect, the tenth aspect, the twelfth aspect, or the fourteenth aspect. For example, the communications apparatus may have functions of implementing a part or all of the embodiments of this application, or may have a function of independently implementing any embodiment of this application. The function may be implemented by hardware, or may be implemented by hardware executing corresponding software. The hardware or the software includes one or more units or modules corresponding to the function.

[0097] In an implementation, a structure of the communications apparatus may include a processing unit, a storage unit, and a communications unit. The processing unit is configured to support the communications apparatus in performing a corresponding function in the foregoing method. The communications unit is configured to support communication between the communications apparatus and another device. The storage unit is configured to be coupled to the processing unit and a communications unit, and the storage unit stores a computer program and data that are necessary for the communications apparatus. The storage unit is configured to store bufferable

BRIEF DESCRIPTION OF DRAWINGS

- [00125] FIG. 1 is a schematic diagram of an architecture of a communications system according to an embodiment of this application;
- [00126] FIG. 2 is a schematic flowchart of a method for determining a data buffer status
5 according to an embodiment of this application;
- [00127] FIG. 3a is a schematic flowchart of another method for determining a data buffer status according to an embodiment of this application;
- [00128] FIG. 3b is a schematic diagram of management frames supported by a first MLD-a and a ~~second~~first MLD-b and an AID corresponding to each AC according to an embodiment of this
10 application;
- [00129] FIG. 4a is a schematic flowchart of still another method for determining a data buffer status according to an embodiment of this application;
- [00130] FIG. 4b is a schematic diagram of a scenario in which a second MLD sends bufferable data to a first MLD according to an embodiment of this application;
- 15 [00131] FIG. 5A and FIG. 5B are a schematic flowchart of still another method for determining a data buffer status according to an embodiment of this application;
- [00132] FIG. 6a is a schematic flowchart of still another method for determining a data buffer status according to an embodiment of this application;
- [00133] FIG. 6b is a schematic diagram of a scenario in which an operating status of a link is
20 determined according to an embodiment of this application;
- [00134] FIG. 6c is a schematic diagram of another scenario in which an operating status of a link is determined according to an embodiment of this application;
- [00135] FIG. 6d is a schematic diagram of still another scenario in which an operating status of a link is determined according to an embodiment of this application;
- 25 [00136] FIG. 7 is a schematic flowchart of still another method for determining a data buffer status according to an embodiment of this application;
- [00137] FIG. 8 is a schematic flowchart of still another method for determining a data buffer status according to an embodiment of this application;
- [00138] FIG. 9a is a schematic flowchart of still another method for determining a data buffer
30 status according to an embodiment of this application;

areas uses a distributed system again, the mobile station is reassociated with a network by using a reassociation request frame. The action frame is used to trigger a measurement action.

[00160] To better understand a method for determining a data buffer status disclosed in the embodiments of this application, the following first describes a communications system to which the embodiments of this application are applicable.

[00161] An embodiment of this application provides a communication method applied to a wireless communications system. The wireless communications system may be a wireless local area network (Wireless local area network, WLAN) or a cellular network, and the method may be implemented by a communications device in the wireless communications system or a chip or a processor in the communications device. The communications device may be a wireless communications device that supports parallel transmission over a plurality of links, for example, the wireless communications device is referred to as a multi-link device (Multi-link device) or a multi-band device (multi-band device). Compared with a device that supports only single-link transmission, the multi-link device has higher transmission efficiency and a higher throughput.

[00162] The multi-link device includes one or more affiliated stations ~~STAs~~ (affiliated STAs). The affiliated STA is a logical station and may operate on one link. The affiliated station may be an access point (Access Point, AP) or a non-access point station (non-Access Point Station, non-AP STA). For ease of description, in this application, a multi-link device whose affiliated station is an AP may be referred to as a multi-link AP, a multi-link AP device, or an AP multi-link device (AP multi-link device). A multi-link device whose affiliated station is a non-AP STA may be referred to as a multi-link STA, a multi-link STA device, or a STA multi-link device (STA multi-link device). For ease of description, that "the multi-link device includes an affiliated STA" is also briefly described as that "the multi-link device includes a STA" in the embodiments of this application.

[00163] It should be noted that the multi-link device includes a plurality of logical stations, and each logical station operates on one link, but the plurality of logical stations are allowed to operate on a same link. A link identifier mentioned below represents one station operating on one link. In other words, if there is more than one station on one link, more than one link identifier is required to represent the more than one station. A link mentioned below sometimes also represents a station operating on the link.

[00164] When data is to be transmitted between the multi-link AP device and the multi-link

by the first MLD 101 may be determined in a process of establishing a connection between the first MLD 101 and the second MLD 102.

[00175] Data types supported by different first MLDs 101 may be the same or different. When the communications system shown in FIG. 1 includes a plurality of first MLDs 101, the second MLD 102 may determine a buffer status of bufferable data that corresponds to at least one data type supported by each first MLD 101 and that is in the second MLD 102; and send indication information to each first MLD 101. It should be noted that the second MLD may broadcast the indication information to each first MLD. In this case, the indication information received by all the first MLDs is the same. The indication information may indicate the buffer status of the bufferable data that corresponds to the at least one data type supported by each first MLD 101 and that is in the second MLD 102. Alternatively, the second MLD may separately ~~broadcast~~send the indication information to each first MLD. In this case, the indication information received by all the first MLDs is different. The indication information received by each first MLD is used to indicate the buffer status of the bufferable data that corresponds to the at least one data type supported by the first MLD 101 and that is in the second MLD 102. It should be noted that "at least one" mentioned in this embodiment of this application may be described as "one or more".

[00176] When the communications system shown in FIG. 1 includes a plurality of second MLDs 102, each of the second MLDs 102 (for example, a second MLD-a and a second MLD-b) may determine a buffer status of bufferable data that corresponds to at least one data type supported by the first MLD 101 and that is in the second MLD 102; and send indication information to the first MLD 101. Indication information received by the first MLD 101 from the second MLD-a may indicate a buffer status of bufferable data that corresponds to the at least one data type supported by the first MLD 101 and that is in the second MLD-a. Similarly, indication information received by the first MLD 101 from the second MLD-b may indicate a buffer status of bufferable data that corresponds to the at least one data type supported by the first MLD 101 and that is in the second MLD-b.

[00177] It may be understood that the communications system described in the embodiments of this application is intended to describe the technical solutions in the embodiments of this application more clearly, but does not constitute a limitation on the technical solutions provided in the embodiments of this application. A person of ordinary skill in the art may learn that, with evolution of a system architecture and emergence of a new service scenario, the technical solutions

provided in the embodiments of this application are also applicable to a similar technical problem.

[00178] A method for determining a data buffer status, and an apparatus that are provided in this application are described in detail in the following with reference to the accompanying drawings.

5 **[00179]** FIG. 2 is a schematic flowchart of a method for determining a data buffer status according to an embodiment of this application. The method describes in detail how a first MLD determines, based on indication information from a second MLD, a buffer status of bufferable data that corresponds to at least one data type and that is in the second MLD. Step S201 and step S202 are performed by the second MLD or a chip in the second MLD, and step S203 is performed by
10 the first MLD or a chip in the first MLD. An example in which the second MLD and the first MLD perform the method for determining a data buffer status is used for description in the following. As shown in FIG. 2, the method may include but is not limited to the following steps.

[00180] Step S201: The second multi-link device MLD determines a buffer status of bufferable data that corresponds to at least one data type supported by the first MLD and that is in the second
15 MLD.

[00181] In this embodiment of this application, the second MLD may determine whether the bufferable data corresponding to the at least one data type supported by the first MLD is buffered in the second MLD. When the first MLD supports one data type, the second MLD may determine whether data to be sent to the first MLD is buffered in the second MLD, where a data type of the
20 bufferable data is the data type supported by the first MLD.

[00182] When the first MLD supports a plurality of data types, the second MLD may determine whether bufferable data corresponding to each data type supported by the first MLD is buffered in the second MLD. For example, when the first MLD supports three data types (a data type 1, a data type 2, and a data type 3), the second MLD may determine whether bufferable data corresponding
25 to each of the data type 1, the data type 2, and the data type 3 is buffered in the second MLD. In another implementation, the second MLD may determine whether bufferable data corresponding to the data type 1 is buffered in the second MLD, and determine whether bufferable data corresponding to at least one of the data type 2 and the data type 3 is buffered in the second MLD. For example, in the second MLD, when the bufferable data corresponding to the data type 1 is buffered
30 in a buffer area a, and the bufferable data corresponding to at least one of the data type 2 and the data type 3 is buffered in a buffer area b, if the second MLD detects that a bufferable unit (bufferable

implementation, the second MLD may periodically send indication information to a ~~second~~first MLD to which a station in an energy-saving mode belongs. In this case, the indication information may indicate whether bufferable data to be sent to the station in the energy-saving mode in the ~~second~~first MLD is buffered on the ~~first~~second MLD in a process in which the station is in the doze state. The indication information may be received by a station in an active state in the first MLD. The indication information may be carried in a control frame or a management frame.

[00194] Step S203: The first MLD determines, based on the indication information, the buffer status of the bufferable data that corresponds to the at least one data type and that is in the second MLD.

[00195] After receiving the indication information from the second MLD, the first MLD may determine, based on the indication information, the buffer status of the bufferable data that corresponds to the at least one data type and that is in the second MLD.

[00196] Specifically, if a value of a bit in the indication information is a first value (for example, 1), the first MLD may determine that bufferable data of a data type corresponding to the bit is buffered in the second MLD; if the value of the bit is a second value (for example, 0), the first MLD may determine that the bufferable data of the data type corresponding to the bit is not buffered in the second MLD. For example, the indication information includes two bits (a bit 1 and a bit 2), the first MLD supports three data types (a data type 1, a data type 2, and a data type 3), the bit 1 corresponds to the data type 1, and the bit 2 corresponds to the data type 2 and the data type 3. If a value of the bit 1 is 1, the first MLD may determine that bufferable data corresponding to the data type 1 is buffered in the second MLD. If the value of the bit 1 is 0, the first MLD may determine that the bufferable data corresponding to the data type 1 is not buffered in the second MLD. If a value of the bit 2 is 1, the first MLD may determine that bufferable data corresponding to at least one data type of the data type 2 or the data type 3 is buffered in the second MLD. If the value of the bit 2 is 0, the first MLD may determine that neither bufferable data corresponding to the data type 2 nor bufferable data corresponding to the data type 3 is buffered in the second MLD. That the first value is 1 and the second value is 0 is merely used as an example, but does not constitute a limitation on this embodiment of this application. Optionally, the first value may be 0, and the second value may be 1.

[00197] It should be noted that, when only bufferable data corresponding to a part of data types in data types supported by the first MLD is buffered in the second MLD, a bit in the indication

that in Table 3 and Table 4, the consecutive four AIDs are merely used as an example, but do not constitute a limitation on this embodiment of this application. In another feasible implementation, when the second indication information indicates a plurality of AIDs, the plurality of AIDs may be consecutive or inconsecutive. In other words, the second MLD may randomly select a plurality of AIDs from available AID space and allocate the plurality of AIDs to the first MLD. The at least one AID corresponding to the at least one data type supported by the first MLD is indicated by using the second indication information, so that an AID can be more flexibly allocated to the first MLD.

[00223] In an implementation, the first MLD may support a plurality of data types. The second indication information may indicate a first association identifier, and the first association identifier corresponds to a first data type in the plurality of data types. The first MLD may determine, based on the first association identifier corresponding to the first data type, an association identifier corresponding to a data type in the plurality of data types other than the first data type.

[00224] For example, data types include a management frame and an AC. It is assumed that the first association identifier indicated by the second indication information is an AID 0, and the AID 0 corresponds to the management frame supported by the first MLD. The first MLD may determine, based on the supported management frame and priorities of various ACs, that AC_VO, AC_VI, AC_BK, and AC_BE respectively correspond to an AID 0+1, an AID 0+2, an AID 0+3, and an AID 0+4. That is, four ACs supported by the first MLD respectively correspond to four consecutive AIDs following the AID 0 indicated by the second indication information. Alternatively, AC_VO, AC_VI, AC_BE, and AC_BK may respectively correspond to an AID 0+2, an AID 0+4, an AID 0+6, and an AID 0+8. That is, AIDs corresponding to various data types supported by the first MLD may be inconsecutive.

[00225] It should be noted that, in the foregoing example, that the first association identifier indicated by the second indication information is the AID 0 and the AID 0 corresponds to the management frame is merely used as an example, but does not constitute a limitation on this embodiment of this application. For example, the first association identifier indicated by the second indication information may be an AID 2, and an AID 2+2 corresponds to AC_VI in the four ACs supported by the first MLD. In this case, the first MLD may determine, based on priorities of various supported data types, that the management frame, AC_VO, AC_BK, and AC_BE respectively correspond to an AID 2+1, an AID 2+2, an AID 2+3, and an AID 2+4. Alternatively,

AC_VO corresponds to an AID 2-1, the management frame corresponds to an AID 2-2, and AC_BK and AC_BE respectively correspond to an AID 2+1 and an AID 2+2. When an AID indicated by the second indication information corresponds to one data type in data types supported by the first MLD, the first MLD may determine, based on the AID, an AID corresponding to another supported data type. An AID is indicated in the second indication information. This can effectively reduce signaling overheads.

[00226] In an implementation, when the second indication information indicates at least two AIDs, one AID in the at least two AIDs may correspond to the management frame, and the remaining AID corresponds to the service type supported by the first MLD. The AID corresponding to the management frame and AIDs corresponding to a part of service types supported by the first MLD are indicated by using the second indication information, so that signaling overheads can be effectively reduced, and a manner in which the first MLD determines the AID corresponding to the management frame and an AID corresponding to each supported service type can be improved.

[00227] It should be noted that the second MLD may send the second indication information to each of a plurality of first MLDs, to allocate a different AID to each first MLD. In other words, different first MLDs have different AIDs. For example, when two first MLDs (a first MLD-a and a ~~second~~first MLD-b) each support a management frame and four ACs (AC_VO (voice), AC_VI (video), AC_BE (best effort), and AC_BK (background)), a schematic diagram of management frames supported by the first MLD-a and the ~~second~~first MLD-b and an AID corresponding to each AC may be shown in FIG. 3b. It can be learned from FIG. 3b that AIDs of the first MLD-a are an AID 0 to an AID 4, and AIDs of the ~~second~~first MLD-b are an AID 5 to an AID 8. That is, the AIDs of the first MLD-a are different from the AIDs of the ~~second~~first MLD-b.

[00228] In an implementation, a quantity of AIDs allocated by the second MLD to the first MLD may be the same as a quantity of data types supported by the first MLD. When a data type supported by the first MLD is added, the second MLD allocates a new AID to the data type newly supported by the first MLD. In this way, allocation of an unnecessary AID can be avoided.

[00229] In an implementation, the second MLD may allocate one AID to one or more data types supported by a same first MLD. For example, when data types supported by the first MLD are a management frame, AC_VO, AC_VI, AC_BE, and AC_BK, the second MLD may allocate one AID to the management frame, AC_VO, and AC_VI, and allocate another AID to AC_BE and

gray filled square indicates bufferable data corresponding to the data type b, and a number in the square is used to uniquely identify one piece of bufferable data. In FIG. 4b, the last piece of bufferable data to be transmitted on the link 1 is bufferable data 2, and the last piece of bufferable data to be transmitted on the link 2 is bufferable data 4. It can be learned from FIG. 4b that, when the second MLD sends the bufferable data 2 to the first MLD through the link 1, because the bufferable data 4 is buffered in the second MLD, and the data type b to which the bufferable data 4 belongs is mapped to the link 1, the second MLD may set a value of a More Data subfield in the bufferable data 2 to 1.

[00250] Because the data type b is mapped to the link 1 and the link 2, the bufferable data 4 can be transmitted through the link 1 or the link 2. If the second MLD subsequently sends the bufferable data 4 to the first MLD through the link 2, because both the bufferable data corresponding to the data type a mapped to the link 1 and the bufferable data corresponding to the data type b mapped to the link 1 are sent completely, the second MLD cannot send bufferable data to the ~~second~~first MLD over the first link, and cannot indicate, by using a More Data subfield in the bufferable data, that neither the bufferable data corresponding to the data type a nor the bufferable data corresponding to the data type b is buffered in the second MLD, either. In other words, that no bufferable data is subsequently transmitted to the first MLD through the link 1 cannot be indicated by using the More Data subfield in the bufferable data.

[00251] In this case, the foregoing problem can be resolved by sending the fourth indication information by the second MLD to the first MLD. The fourth indication information may indicate that bufferable data corresponding to any data type mapped to the link 1 is not buffered in the second MLD. To be specific, the fourth indication information may indicate that neither the bufferable data corresponding to the data type a nor the bufferable data corresponding to the data type b is buffered in the second MLD.

[00252] In an implementation, the fourth indication information may be a QoS Null frame, the QoS Null frame is a data frame that does not carry a payload (payload), and a value of a More Data subfield in the QoS Null frame is 0. The second MLD may send the QoS Null frame to the first MLD over the first link.

[00253] In an implementation, after receiving the fourth indication information from the second MLD, the first MLD may determine the operating status of the station corresponding to the first link as the doze state based on the fourth indication information. This helps reduce power

and a data type b are mapped to the link 1, the data type b is mapped to the link 2, and the data type b is mapped to the link 3. In FIG. 6b, a white filled square indicates bufferable data corresponding to the data type a, a gray filled square indicates bufferable data corresponding to the data type b, and a number in the square is used to uniquely identify one piece of bufferable data. In FIG. 6b, the last piece of bufferable data to be transmitted on the link 1 is bufferable data a2, the last piece of bufferable data to be transmitted on the link 2 is bufferable data b4, and the last piece of bufferable data to be transmitted on the link 3 is bufferable data b2.

[00287] It can be learned from FIG. 6b that the last piece of bufferable data (a2) that corresponds to the data type a and that is buffered in the second MLD is sent through the link 1, and the last piece of bufferable data (b4) that corresponds to the data type b and that is buffered in the second MLD is sent through the link 2. Therefore, when a value of a More Data subfield in the bufferable data a2 is 0, it indicates that before the second MLD sends the bufferable data a2, the bufferable data corresponding to the data type a is buffered in the second MLD, and after the second MLD sends the bufferable data a2, the bufferable data corresponding to the data type a is not buffered in the second MLD. When a value of a More Data subfield in the bufferable data b4 is 0, it indicates that before the second MLD sends the bufferable data b4, the bufferable data corresponding to the data type b is buffered in the second MLD, and after the second MLD sends the bufferable data b4, the bufferable data corresponding to the data type b is not buffered in the second MLD.

[00288] Only the data type b is mapped to the link 2 and the link 3, that is, the link 2 and the link 3 are used to transmit only the bufferable data corresponding to the data type b. Therefore, after receiving b4, the first MLD may determine both operating statuses of a station corresponding to the link 2 and a station corresponding to the link 3 as the doze state (that is, determine operating statuses of the link 2 and the link 3 as the doze state). This helps reduce power consumption. Further, after the first MLD receives a2, because both the last piece of bufferable data (that is, a2) corresponding to the data type a mapped to the link 1 and the last piece of bufferable data (that is, b4) corresponding to the data type b mapped to the link 1 are sent to the first MLD, the first MLD may determine an operating status of a station corresponding to the link 1 as the doze state (that is, determine an operating status of the link 1 as the doze state).

[00289] If a More Data subfield in bufferable data is used to indicate whether bufferable data to be sent to the first MLD is buffered in the second MLD, in FIG. 6b, the link 1, the link 2, and the link 3 can be switched to the doze state only after the first MLD receives at the last piece of bufferable unit data

(that is, a2) sent by the second MLD. In other words, when the bufferable data to be sent to the first MLD is still buffered in the second MLD, any one of the link 1, the link 2, and the link 3 cannot be switched to the doze state. Therefore, in comparison with that the More Data subfield in the bufferable data is used to indicate whether the bufferable data to be sent to the first MLD is buffered in the second MLD, according to this embodiment of this application, when the bufferable data to be sent to the first MLD is still buffered in the second MLD, a part of the links between the first MLD and the second MLD are enabled to be in the doze state. Correspondingly, a station corresponding to the link in the doze state in the first MLD is also in the doze state. In this way, power consumption is reduced.

[00290] The first MLD may learn, based on the fifth indication information in the bufferable data 1, whether the bufferable data corresponding to the third data type is buffered in the second MLD. However, the first MLD cannot learn a buffer status of bufferable data corresponding to another data type in the second MLD. In an implementation, the bufferable data corresponding to the third data type that is received by the first MLD from the second MLD may further include sixth indication information, where the sixth indication information may be used to indicate whether bufferable data corresponding to at least one fourth data type is buffered in the second MLD, and the fourth data type is any data type other than the third data type in data types supported by the first MLD. When the fifth indication information indicates that the bufferable data corresponding to the third data type is not buffered in the second MLD, that is, when the bufferable data corresponding to the third data type is sent completely, the sixth indication information may indicate whether bufferable data to be sent to the first MLD is buffered in the second MLD.

[00291] In an implementation, when the fifth indication information in the bufferable data corresponding to the third data type indicates that the bufferable data corresponding to the third data type is not buffered in the second MLD, the bufferable data corresponding to the third data type may further include sixth indication information. When the fifth indication information in the bufferable data corresponding to the third data type indicates that the bufferable data corresponding to the third data type is buffered in the second MLD, the bufferable data corresponding to the third data type may not include sixth indication information.

[00292] In an implementation, the sixth indication information may be a "more fragment (More Fragment)" subfield in the bufferable data. Specifically, when the second MLD sends, to the first MLD, the bufferable data (for example, the bufferable data 1) corresponding to the third data type,

and that is in the second MLD.

[00322] In this embodiment of this application, the second MLD may include a plurality of buffer areas, and each buffer area may be used to buffer bufferable data corresponding to one or more links (between the second MLD and the first MLD). If a buffer area r is used to buffer bufferable data corresponding to a link 1, it may indicate that the bufferable data in the buffer area r is to be transmitted to the first MLD through the link 1. If the buffer area r is used to buffer the bufferable data corresponding to the link 1 and bufferable data corresponding to a link 2, it may indicate that the bufferable data in the buffer area r may be transmitted to the first MLD through at least one link of the link 1 and the link 2. Therefore, the second MLD can determine, by detecting whether bufferable data exists in each buffer area in the second MLD, whether bufferable data of a link corresponding to each buffer area exists in the second MLD. One or more data types may be mapped to one link. Further, the second MLD may determine a buffer status, in each buffer area, of a data type mapped to a link corresponding to the buffer area.

[00323] For example, a data type is a TID. When one buffer area is used to buffer bufferable data corresponding to one link, and the first MLD supports eight TIDs, the second MLD may determine a buffer status of each TID in each buffer area.

[00324] Step S902: The second MLD sends tenth indication information to the first MLD, where the tenth indication information is used to indicate the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link corresponding to the first MLD and that is in the second MLD.

[00325] The tenth indication information may be a bit occupied by a control type b in an EHT A-control field in a MAC frame. For a description of the EHT A-control field, refer to the embodiment shown in FIG. 2. Details are not described herein again. The control type b is a newly added control type.

[00326] When data types include a management frame and a TID, the control type b may be referred to as "more data per TID per link (More Data Per TID Per link)". A quantity of bits occupied by "More Data Per TID Per link" may be $9 * L$. L is a quantity of links between the first MLD and the second MLD. In this case, the "More Data Per TID Per link" subfield may include L "per link (per link) structures", one "per link structure" may correspond to one link, each per link structure may include 9 bits, and one bit in the per link structure corresponds to one data type. Specifically, one bit may correspond to a management frame, and each bit in the other eight bits

area corresponding to the link 2 in the second MLD.

[00329] It should be noted that, that one per link structure includes 9 bits are merely used as an example, and in another feasible implementation, one per link structure may include one or more bits. For example, a quantity of bits included in a per link structure may be the same as a quantity of data types mapped to a link corresponding to the per link structure. When a data type is an AC, a quantity of bits included in the per link structure may be the same as a quantity of ACs corresponding to a TID mapped to the link corresponding to the per link structure.

[00330] It should be further noted that, that one bit in the per link structure corresponds to one data type (a management frame, a TID, or an AC) is merely used as an example, and one bit in the per link structure may correspond to one or more data types (a management frame, a TID, or an AC).

[00331] In an implementation, when the first MLD allocates a different buffer area to each link, and a bit in the per link structure may correspond to at least two types, after receiving the tenth indication information from the second MLD, the first MLD may determine, based on the tenth indication information, a buffer status of bufferable data that corresponds to the at least one of the at least two types mapped to each link and that is in the second MLD. For example, when the first bit in the per link structure corresponding to the link 1 corresponds to a TID 1 and a TID 2, and a value of the first bit is 1, it may indicate that bufferable data corresponding to at least one TID of the TID 1 and the TID 2 is buffered in the buffer area corresponding to the link 1 in the second MLD. When the value of the first bit is 0, it may indicate that neither bufferable data corresponding to the TID 1 nor bufferable data corresponding to the TID 2 is buffered in the buffer area corresponding to the link 1 in the second MLD.

[00332] In an implementation, when the first MLD may allocate a same buffer area to at least two links, and one bit in the per link structure corresponds to one data type, after receiving the tenth indication information from the second MLD, the first MLD may determine, based on the tenth indication information, a buffer status of bufferable data that corresponds to at least one of the at least two links and that is in the second MLD. For example, when the buffer area r in the second MLD corresponds to the link 1 and the link 2, and the first bits in the per link structures corresponding to the link 1 and the link 2 correspond to the TID 1, if values of the first bits are 1, it may indicate that the bufferable data corresponding to the TID 1 is buffered in the buffer area r, and the bufferable data may be sent to the first MLD through the link 1 and/or the link 2. If the values of

a more appropriate operating status for the station in the first MLD.

[00337] In the foregoing embodiments provided in this application, the methods provided in the embodiments of this application are separately described from perspectives of the first MLD and the second MLD. To implement functions in the methods provided in the foregoing embodiments of this application, the first MLD and the second MLD each may include a hardware structure and a software module, to implement the foregoing functions in a form of the hardware structure, the software module, or a combination of the hardware structure and the software module. A function in the foregoing functions may be performed in a manner of the hardware structure, the software module, or a combination of the hardware structure and the software module.

[00338] FIG. 10 is a schematic diagram of a structure of a communications apparatus 100 according to an embodiment of this application. The communications apparatus 100 shown in FIG. 10 may include a communications unit 1001 and a processing unit 1002. The communications unit 1001 may include a sending unit and/or a receiving unit. The sending unit is configured to implement a sending function, the receiving unit is configured to implement a receiving function, and the communications unit 1001 may implement a sending function and/or a receiving function. The communications unit may also be described as a transceiver unit.

[00339] The communications apparatus 100 may be a first MLD, or may be an apparatus in the first MLD, or may be an apparatus that can be used together with the first MLD. When the communications apparatus 100 is the first MLD, the communications apparatus 100 may be the first MLD in the embodiments shown in any one of FIG. 2 to FIG. 9a.

[00340] The communications apparatus 100 is the first MLD in the embodiment shown in FIG. 3a or FIG. 5A and FIG. 5B.

[00341] The communications unit 1001 is configured to receive first indication information from a second MLD, where the first indication information is used to indicate a buffer status of bufferable data that corresponds to an association identifier of the communications apparatus 100 and that is in the second MLD.

[00342] The processing unit 1002 is configured to determine, based on the first indication information and a correspondence between the association identifier of the first MLD and a data type supported by the first MLD, a buffer status of bufferable data that corresponds to the at least one data type and that is in the second MLD.

[00343] In an implementation, the communications apparatus 100 has a plurality of stations.

station corresponding to the second link in the plurality of stations based on whether the bufferable data corresponding to the third data type is buffered in the second MLD, the processing unit 1002 is specifically configured to determine the operating status of the station corresponding to the second link in the plurality of stations based on whether the bufferable data corresponding to the third data type is buffered in the second MLD and whether the data type other than the third data type is mapped to the second link.

[00359] In an implementation, the fifth indication information indicates that the bufferable data corresponding to the third data type is not buffered in the second MLD. The bufferable data corresponding to the third data type that is received by the communications unit 1001 from the second MLD further includes sixth indication information, where the sixth indication information is used to indicate whether bufferable data corresponding to at least one fourth data type is buffered in the second MLD, and the fourth data type is any data type other than the third data type in data types supported by the communications apparatus 100.

[00360] In an implementation, a priority of the fourth data type may be higher than a priority of the third data type.

[00361] The communications apparatus 100 is the first MLD in the embodiment shown in FIG. 7.

[00362] The communications unit 1001 is configured to receive seventh indication information from a second MLD, where the seventh indication information is used to indicate that bufferable data corresponding to a fifth data type is not buffered in the second MLD, and the fifth data type is any one of data types supported by the communications apparatus 100.

[00363] The processing unit 1002 is configured to determine, based on the seventh indication information, that the bufferable data corresponding to the fifth data type is not buffered in the second MLD.

[00364] In an implementation, the communications apparatus 100 has a plurality of stations. The processing unit 1002 is further configured to determine an operating status of a station corresponding to a third link in the plurality of stations based on that the bufferable data corresponding to the fifth data type is not buffered in the second MLD, where the fifth data type is mapped to the third link, and the operating status is an active state or a doze state.

[00365] The communications apparatus 100 is the first MLD in the embodiment shown in FIG. 8.

- [00366] The communications unit 1001 is configured to receive eighth indication information from a second MLD through a fourth link, where the eighth indication information is used to indicate that bufferable data corresponding to any data type mapped to the fourth link is not buffered in the second MLD.
- 5 [00367] The processing unit 1002 is configured to determine, based on the eighth indication information, that the bufferable data corresponding to the any data type mapped to the fourth link is not buffered in the second MLD.
- [00368] In an implementation, the communications apparatus 100 has a plurality of stations. The processing unit 1002 is further configured to determine an operating status of a station
10 corresponding to the fourth link in the plurality of stations based on that the bufferable data corresponding to the any data type mapped to the fourth link is not buffered in the second MLD, where the operating status is an active state or a doze state.
- ~~[00369] 100 has a plurality of stations. The processing unit 1002 is further configured to correspond to the at least one data type.~~
- 15 [00370] The communications apparatus 100 is the first MLD in the embodiment shown in FIG. 2.
- [00371] The communications unit 1001 is configured to receive ninth indication information from a second MLD, where the ninth indication information is used to indicate a buffer status of bufferable data that corresponds to at least one data type supported by the communications
20 apparatus and that is in the second MLD.
- [00372] The processing unit 1002 is configured to determine, based on the ninth indication information, the buffer status of the bufferable data that corresponds to the at least one data type and that is in the second MLD.
- [00373] In an implementation, the communications apparatus 100 has a plurality of stations.
25 The processing unit 1002 is further configured to determine an operating status of at least one station in the plurality of stations based on the buffer status of the bufferable data that corresponds to the at least one data type and that is of the communications apparatus in the second MLD, where the operating status is an active state or a doze state.
- [00374] The communications apparatus 100 is the first MLD in the embodiment shown in FIG.
30 9a.
- [00375] The communications unit 1001 is configured to receive tenth indication information

1103 may be fixed in the processor 1101, and in this case, the processor 1101 may be implemented by hardware.

[00386] In an implementation, the communications apparatus 110 may include a circuit, and the circuit may implement a sending, receiving, or communication function in the foregoing method embodiments. The processor and the transceiver described in this application may be implemented in an integrated circuit (integrated circuit, IC), an analog IC, a radio frequency integrated circuit RFIC, a mixed-signal IC, an application-specific integrated circuit (application-specific integrated circuit, ASIC), or a printed circuit board (printed circuit board, PCB), an electronic device, and the like. The processor and the transceiver may alternatively be manufactured by using various IC process technologies, for example, a complementary metal oxide semiconductor (complementary metal oxide semiconductor, CMOS), an n-type metal oxide semiconductor (n-type Metal-oxide-semiconductor, NMOS), a p-type metal oxide semiconductor (~~p-type positive channel~~ metal oxide semiconductor, PMOS), a bipolar junction transistor (bipolar junction transistor, BJT), a bipolar CMOS (BiCMOS), silicon germanium (SiGe), and gallium arsenide (GaAs).

[00387] The communications apparatus described in the foregoing embodiment may be a first MLD. However, a scope of the communications apparatus described in this application is not limited thereto, and a structure of the communications apparatus may not be limited by FIG. 11. The communications apparatus may be an independent device or a part of a large device. For example, the communications apparatus may be:

- (1) an independent integrated circuit IC, a chip, or a chip system or subsystem;
- (2) a set including one or more ICs, where optionally, the IC set may further include a storage component configured to store data and a computer program;
- (3) an ASIC, for example, a modem (Modem);
- (4) a module that can be embedded in another device;
- (5) a receiver, a terminal, an intelligent terminal, a cellular phone, a wireless device, a handheld device, a mobile unit, a vehicle-mounted device, a network device, a cloud device, an artificial intelligence device, or the like; or
- (6) others, or the like.

[00388] For a case in which the communications apparatus may be a chip or a chip system, refer to a schematic diagram of a structure of a chip shown in FIG. 12. The chip shown in FIG. 12

operating status of at least one station in a plurality of stations based on the buffer status of the bufferable data that corresponds to the at least one data type and that is of the first MLD in the second MLD, where the operating status is an active state or a doze state.

[00409] For a case in which the chip is configured to implement a function of the first MLD in the embodiment shown in FIG. 9a:

the interface 1202 is configured to receive tenth indication information from a second MLD, where the tenth indication information is used to indicate a buffer status of bufferable data that corresponds to at least one data type mapped to at least one link corresponding to the first MLD and that is in the second MLD; and

the processor 1201 is configured to determine, based on the tenth indication information, the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link and that is in the second MLD.

[00410] In an implementation, the first MLD has a plurality of stations. The processor 1201 is further configured to determine an operating status of at least one station in the plurality of stations based on the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link and that is in the second MLD, where the operating status is an active state or a doze state.

[00411] Optionally, the chip further includes a memory 1203, and the memory 1203 is configured to store a necessary computer program and data.

[00412] FIG. 13 is a schematic diagram of a structure of still another communications apparatus 130 according to an embodiment of this application. The communications apparatus 130 shown in FIG. 13 may include a communications unit 1301, a processing unit 1302, and a storage unit 1303. The communications unit 1301 may include a sending unit and/or a receiving unit. The sending unit is configured to implement a sending function, the receiving unit is configured to implement a receiving function, and the communications unit 1301 may implement a sending function and/or a receiving function. The communications unit may also be described as a transceiver unit.

[00413] The communications apparatus 130 may be a second MLD, or may be an apparatus in the second MLD, or may be an apparatus that can be used together with the second MLD. When the communications apparatus 130 is the second MLD, the communications apparatus 130 may be the second MLD in the embodiments shown in any one of the FIG. 2 to FIG. 9a.

[00414] The communications apparatus 130 is the second MLD in the embodiment shown in

any usable medium accessible by the computer, or a data storage device, for example, a server or a data center, integrating one or more usable media. The usable medium may be a magnetic medium (for example, a floppy disk, a hard disk, or a magnetic tape), an optical medium (for example, a digital video disc (digital video disc, DVD)), a semiconductor medium (for example, a solid-state drive (solid-state disk, SSD)), or the like.

[00469] A person of ordinary skill in the art may understand that various numerals such as first and second in this application are merely distinguished for convenient description, but are not used to limit a scope of the embodiments of this application, and also indicate a sequence.

[00470] "The at least one" in this application may alternatively be described as one or more, and "the plurality of" means two, three, four, or more. This is not limited in this application. In the embodiments of this application, "first", "second", "third", "A", "B", "C", "D", and the like are used for distinguishing between technical features described by them. There is no chronological order or no size order between the technical features described by "first", "second", "third", "A", "B", "C", and "D".

[00471] The correspondences shown in the tables in this application may be configured, or may be predefined. Values of the information in the tables are merely examples, and other values may be configured. This is not limited in this application. When a correspondence between information and each parameter is configured, not all correspondences shown in the tables need to be configured. For example, in the tables in this application, correspondences shown in some rows may alternatively not be configured. For another example, proper deformations and adjustments such as splitting and combination may be performed based on the foregoing tables. Names of the parameters shown in titles of the foregoing tables may alternatively be other names that can be understood by a communications apparatus, and values or representation manners of the parameters may alternatively be other values or representation manners that can be understood by the communications apparatus. During implementation of the foregoing tables, another data structure, such as an array, a queue, a container, a stack, a linear table, a pointer, a linked list, a tree, a graph, a structure, a class, a pile, or a hash table, may alternatively be used.

[00472] "Predefine" in this application may be understood as "define", "predefine", "store", "pre-store", "pre-negotiate", "pre-configure", "solidify", or "pre-burn".

[00473] A person of ordinary skill in the art may be aware that, with reference to the units and algorithm steps described in the examples of the embodiments disclosed in this specification, the

CLAIMS

What is claimed is:

1. A method for determining a data buffer status, wherein the method comprises:
receiving, by a first multi-link device MLD, first indication information from a second MLD,
5 wherein the first indication information is used to indicate a buffer status of bufferable data that corresponds to an association identifier of the first MLD and that is in the second MLD; and
determining, by the first MLD based on the first indication information and a correspondence between the association identifier and a data type supported by the first MLD, a buffer status of bufferable data that corresponds to the at least one data type and that is in the second MLD.
- 10 2. A method for determining a data buffer status, wherein the method comprises:
determining, by a second multi-link device MLD, a buffer status of bufferable data that corresponds to at least one data type supported by a first MLD and that is in the second MLD;
determining, by the second MLD based on the buffer status of the bufferable data that corresponds to the at least one data type and that is in the second MLD and a correspondence
15 between an association identifier of the first MLD and the data type, a buffer status of bufferable data that corresponds to the association identifier and that is in the second MLD; and
sending, by the second MLD, first indication information to the first MLD, wherein the first indication information is used to indicate the buffer status of the bufferable data that corresponds to the association identifier of the first MLD and that is in the second MLD.
- 20 3. A method for determining a data buffer status, wherein the method comprises:
receiving, by a first multi-link device MLD, bufferable data from a second MLD over a first link, wherein the bufferable data comprises third indication information, the third indication information is used to indicate whether bufferable data corresponding to at least one second data type is buffered in the second MLD, and the second data type is any data type mapped to the first
25 link; and
determining, by the first MLD based on the third indication information, whether the bufferable data corresponding to the at least one second data type is buffered in the second MLD.
4. A method for determining a data buffer status, wherein the method comprises:
determining, by a second multi-link device MLD, whether bufferable data corresponding to
30 at least one second data type is buffered in the second MLD, wherein the second data type is any

data type mapped to a first link; and

sending, by the second MLD, bufferable data to a first MLD over the first link, wherein the bufferable data comprises third indication information, and the third indication information is used to indicate whether the bufferable data corresponding to the at least one second data type is buffered in the second MLD.

5 5. A method for determining a data buffer status, wherein the method comprises:

receiving, by a first multi-link device MLD from a second MLD, bufferable data corresponding to a third data type, wherein the bufferable data comprises fifth indication information, and the fifth indication information is used to indicate whether the bufferable data corresponding to the third data type is buffered in the second MLD; and

10 determining, by the first MLD based on the fifth indication information, whether the bufferable data corresponding to the third data type is buffered in the second MLD.

6. A method for determining a data buffer status, wherein the method comprises:

15 determining, by a second multi-link device MLD, whether bufferable data corresponding to a third data type is buffered in the second MLD; and

sending, by the second MLD, the bufferable data corresponding to the third data type to a first MLD, wherein the bufferable data comprises fifth indication information, and the fifth indication information is used to indicate whether the bufferable data corresponding to the third data type is buffered in the second MLD.

20 7. A method for determining a data buffer status, wherein the method comprises:

receiving, by a first multi-link device MLD, seventh indication information from a second MLD, wherein the seventh indication information is used to indicate that bufferable data corresponding to a fifth data type is not buffered in the second MLD, and the fifth data type is any one of data types supported by the first MLD; and

25 determining, by the first MLD based on the seventh indication information, that the bufferable data corresponding to the fifth data type is not buffered in the second MLD.

8. A method for determining a data buffer status, wherein the method comprises:

30 determining, by a second multi-link device MLD, that bufferable data corresponding to a fifth data type is not buffered in the second MLD, wherein the fifth data type is any one of data types supported by a first MLD; and

sending, by the second MLD, seventh indication information to the first MLD, wherein the

seventh indication information is used to indicate that the bufferable data corresponding to the fifth data type is not buffered in the second MLD.

9. A method for determining a data buffer status, wherein the method comprises:

receiving, by a first multi-link device MLD, eighth indication information from a second MLD through a fourth link, wherein the eighth indication information is used to indicate that bufferable data corresponding to any data type mapped to the fourth link is not buffered in the second MLD; and

determining, by the first MLD based on the eighth indication information, that the bufferable data corresponding to the any data type mapped to the fourth link is not buffered in the second MLD.

10. A method for determining a data buffer status, wherein the method comprises:

determining, by a second multi-link device MLD, that bufferable data corresponding to any data type mapped to a fourth link is not buffered in the second MLD; and

sending, by the second MLD, eighth indication information to a first MLD through the fourth link, wherein the eighth indication information is used to indicate that the bufferable data corresponding to the any data type mapped to the fourth link is not buffered in the second MLD.

11. A method for determining a data buffer status, wherein the method comprises:

receiving, by a first multi-link device MLD, ninth indication information from a second MLD, wherein the ninth indication information is used to indicate a buffer status of bufferable data that corresponds to at least one data type supported by the first MLD and that is in the second MLD; and

determining, by the first MLD based on the ninth indication information, the buffer status of the bufferable data that corresponds to the at least one data type and that is in the second MLD.

12. A method for determining a data buffer status, wherein the method comprises:

determining, by a second multi-link device MLD, a buffer status of bufferable data that corresponds to at least one data type supported by a first MLD and that is in the second MLD; and

sending, by the second MLD, ninth indication information to the first MLD, wherein the ninth indication information is used to indicate the buffer status of the bufferable data that corresponds to the at least one data type supported by the first MLD and that is in the second MLD.

13. A method for determining a data buffer status, wherein the method comprises:

receiving, by a first multi-link device MLD, tenth indication information from a second MLD,

wherein the tenth indication information is used to indicate a buffer status of bufferable data that corresponds to at least one data type mapped to at least one link corresponding to the first MLD and that is in the second MLD; and

determining, by the first MLD based on the tenth indication information, the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link and that is in the second MLD.

14. A method for determining a data buffer status, wherein the method comprises:

determining, by a second multi-link device MLD, a buffer status of bufferable data that corresponds to at least one data type mapped to at least one link corresponding to a first MLD and that is in the second MLD; and

sending, by the second MLD, tenth indication information to the first MLD, wherein the tenth indication information is used to indicate the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link corresponding to the first MLD and that is in the second MLD.

15. A communications apparatus, wherein the apparatus comprises a transceiver and a processor, wherein

the transceiver is configured to receive first indication information from a second MLD, wherein the first indication information is used to indicate a buffer status of bufferable data that corresponds to an association identifier of the communications apparatus and that is in the second MLD; and

the processor is configured to determine, based on the first indication information and a correspondence between the association identifier and a data type supported by the communications apparatus, a buffer status of bufferable data that corresponds to the at least one data type and that is in the second MLD.

16. The communications apparatus according to claim 15, wherein the communications apparatus has a plurality of stations; and

the processor is further configured to determine an operating status of at least one station in the plurality of stations based on the buffer status of the bufferable data that corresponds to the at least one data type and that is in the second MLD, wherein the operating status is an active state or a doze state.

17. The communications apparatus according to claim 15 or 16, wherein

the transceiver is further configured to receive second indication information from the second MLD, wherein the second indication information is used to determine the correspondence between the association identifier and the data type.

18. The communications apparatus according to claim 17, wherein the second indication information indicates the at least one association identifier, and the at least one association identifier corresponds to the at least one data type.

19. The communications apparatus according to claim 17, wherein the communications apparatus supports a plurality of data types, the second indication information indicates a first association identifier, and the first association identifier corresponds to a first data type in the plurality of data types; and

the processor is further configured to determine, based on the first association identifier corresponding to the first data type, an association identifier corresponding to a data type in the plurality of data types other than the first data type.

20. A communications apparatus, wherein the apparatus comprises a transceiver, a processor, and a memory, wherein

the processor is configured to: determine a buffer status of bufferable data that corresponds to at least one data type supported by a first MLD and that is in the memory; and determine, based on the buffer status of the bufferable data that corresponds to the at least one data type and that is in the memory and a correspondence between an association identifier of the first MLD and the data type, a buffer status of bufferable data that corresponds to the association identifier and that is in the memory; and

the transceiver is configured to send first indication information to the first MLD, wherein the first indication information is used to indicate the buffer status of the bufferable data that corresponds to the association identifier of the first MLD and that is in the memory.

21. The communications apparatus according to claim 20, wherein

the transceiver is further configured to send second indication information to the first MLD, wherein the second indication information is used to determine the correspondence between the association identifier and the data type supported by the first MLD.

22. The communications apparatus according to claim 21, wherein the second indication information indicates the at least one association identifier, and the at least one association identifier corresponds to the at least one data type.

23. The communications apparatus according to claim 21, wherein the first MLD supports a plurality of data types, the second indication information indicates a first association identifier, and the first association identifier corresponds to a first data type in the plurality of data types.

24. A communications apparatus, wherein the apparatus comprises a transceiver and a processor, wherein

the transceiver is configured to receive bufferable data from a second MLD over a first link, wherein the bufferable data comprises third indication information, the third indication information is used to indicate whether bufferable data corresponding to at least one second data type is buffered in the second MLD, and the second data type is any data type mapped to the first link; and

the processor is configured to determine, based on the third indication information, whether the bufferable data corresponding to the at least one second data type is buffered in the second MLD.

25. The communications apparatus according to claim 24, wherein the communications apparatus has a plurality of stations; and

the processor is further configured to determine an operating status of a station corresponding to the first link in the plurality of stations based on whether the bufferable data corresponding to the at least one second data type is buffered in the second MLD, wherein the operating status is an active state or a doze state.

26. The communications apparatus according to claim 25, wherein

the processor is specifically configured to: if the bufferable data corresponding to the at least one second data type is buffered in the second MLD, determine the operating status of the station corresponding to the first link in the plurality of stations as the active state; and

if bufferable data corresponding to any second data type is not buffered in the second MLD, determine the operating status of the station corresponding to the first link in the plurality of stations as the active state or the doze state.

27. The communications apparatus according to claim 26, wherein the third indication information indicates that the bufferable data corresponding to the at least one second data type is buffered in the second MLD; and

the transceiver is further configured to receive fourth indication information from the second MLD, wherein the fourth indication information is used to indicate that the bufferable data

corresponding to the any second data type is not buffered in the second MLD.

28. A communications apparatus, wherein the apparatus comprises a transceiver, a processor, and a memory, wherein

the processor is configured to determine whether bufferable data corresponding to at least one second data type is buffered in the memory, wherein the second data type is any data type mapped to a first link; and

the transceiver is configured to send bufferable data to a first MLD over the first link, wherein the bufferable data comprises third indication information, and the third indication information is used to indicate whether the bufferable data corresponding to the at least one second data type is buffered in the memory.

29. The communications apparatus according to claim 28, wherein the third indication information indicates that the bufferable data corresponding to the at least one second data type is buffered in the memory; and

the transceiver is further configured to send fourth indication information to the first MLD, wherein the fourth indication information is used to indicate that bufferable data corresponding to any second data type is not buffered in the memory.

30. A communications apparatus, wherein the apparatus comprises a transceiver and a processor, wherein

the transceiver is configured to receive, from a second MLD, bufferable data corresponding to a third data type, wherein the bufferable data comprises fifth indication information, and the fifth indication information is used to indicate whether the bufferable data corresponding to the third data type is buffered in the second MLD; and

the processor is configured to determine, based on the fifth indication information, whether the bufferable data corresponding to the third data type is buffered in the second MLD.

31. The communications apparatus according to claim 30, wherein the communications apparatus has a plurality of stations; and

the processor is further configured to determine an operating status of a station corresponding to a second link in the plurality of stations based on whether the bufferable data corresponding to the third data type is buffered in the second MLD, wherein the third data type is mapped to the second link, and the operating status is an active state or a doze state.

32. The communications apparatus according to claim 31, wherein

the processor is further configured to determine whether a data type other than the third data type is mapped to the second link; and

the processor is specifically configured to determine the operating status of the station corresponding to the second link in the plurality of stations based on whether the bufferable data corresponding to the third data type is buffered in the second MLD and whether the data type other than the third data type is mapped to the second link.

33. The communications apparatus according to claim 30 or 31, wherein the fifth indication information indicates that the bufferable data corresponding to the third data type is not buffered in the second MLD; and the bufferable data corresponding to the third data type that is received by the transceiver from the second MLD further comprises sixth indication information, wherein the sixth indication information is used to indicate whether bufferable data corresponding to at least one fourth data type is buffered in the second MLD, and the fourth data type is any data type other than the third data type in data types supported by the communications apparatus.

34. The communications apparatus according to claim 33, wherein a priority of the fourth data type is higher than a priority of the third data type.

35. A communications apparatus, wherein the apparatus comprises a transceiver, a processor, and a memory, wherein

the processor is configured to determine whether bufferable data corresponding to a third data type is buffered in the memory; and

the transceiver is configured to send the bufferable data corresponding to the third data type to a first MLD, wherein the bufferable data comprises fifth indication information, and the fifth indication information is used to indicate whether the bufferable data corresponding to the third data type is buffered in the memory.

36. The communications apparatus according to claim 35, wherein the fifth indication information indicates that the bufferable data corresponding to the third data type is not buffered in the memory; and the bufferable data corresponding to the third data type that is sent by the transceiver to the first MLD further comprises sixth indication information, wherein the sixth indication information is used to indicate whether bufferable data corresponding to at least one fourth data type is buffered in the memory, and the fourth data type is any data type other than the third data type in data types supported by the first MLD.

37. The communications apparatus according to claim 36, wherein a priority of the fourth

data type is higher than a priority of the third data type.

38. A communications apparatus, wherein the apparatus comprises a transceiver and a processor, wherein

the transceiver is configured to receive seventh indication information from a second MLD,
5 wherein the seventh indication information is used to indicate that bufferable data corresponding to a fifth data type is not buffered in the second MLD, and the fifth data type is any one of data types supported by the communications apparatus; and

the processor is configured to determine, based on the seventh indication information, that the bufferable data corresponding to the fifth data type is not buffered in the second MLD.

39. The communications apparatus according to claim 38, wherein the communications apparatus has a plurality of stations; and

the processor is further configured to determine an operating status of a station corresponding to a third link in the plurality of stations based on that the bufferable data corresponding to the fifth data type is not buffered in the second MLD, wherein the fifth data type is mapped to the third link,
15 and the operating status is an active state or a doze state.

40. A communications apparatus, wherein the apparatus comprises a transceiver, a processor, and a memory, wherein

the processor is configured to determine that bufferable data corresponding to a fifth data type is not buffered in the memory, wherein the fifth data type is any one of data types supported by a
20 first MLD; and

the transceiver is configured to send seventh indication information to the first MLD, wherein the seventh indication information is used to indicate that the bufferable data corresponding to the fifth data type is not buffered in the memory.

41. A communications apparatus, wherein the apparatus comprises a transceiver and a
25 processor, wherein

the transceiver is configured to receive eighth indication information from a second MLD through a fourth link, wherein the eighth indication information is used to indicate that bufferable data corresponding to any data type mapped to the fourth link is not buffered in the second MLD; and

the processor is configured to determine, based on the eighth indication information, that the bufferable data corresponding to the any data type mapped to the fourth link is not buffered in the
30

second MLD.

42. The communications apparatus according to claim 41, wherein the communications apparatus has a plurality of stations; and

the processor is further configured to determine an operating status of a station corresponding to the fourth link in the plurality of stations based on that the bufferable data corresponding to the any data type mapped to the fourth link is not buffered in the second MLD, wherein the operating status is an active state or a doze state.

43. A communications apparatus, wherein the apparatus comprises a transceiver, a processor, and a memory, wherein

the processor is configured to determine that bufferable data corresponding to any data type mapped to a fourth link is not buffered in the memory; and

the transceiver is configured to send eighth indication information to a first MLD through the fourth link, wherein the eighth indication information is used to indicate that the bufferable data corresponding to the any data type mapped to the fourth link is not buffered in the memory.

44. A communications apparatus, wherein the apparatus comprises a transceiver and a processor, wherein

the transceiver is configured to receive ninth indication information from a second MLD, wherein the ninth indication information is used to indicate a buffer status of bufferable data that corresponds to at least one data type supported by the communications apparatus and that is in the second MLD; and

the processor is configured to determine, based on the ninth indication information, the buffer status of the bufferable data that corresponds to the at least one data type and that is in the second MLD.

45. The communications apparatus according to claim 44, wherein the communications apparatus has a plurality of stations; and

the processor is further configured to determine an operating status of at least one station in the plurality of stations based on the buffer status of the bufferable data that corresponds to the at least one data type and that is in the second MLD, wherein the operating status is an active state or a doze state.

46. A communications apparatus, wherein the apparatus comprises a transceiver, a processor, and a memory, wherein

the processor is configured to determine a buffer status of bufferable data that corresponds to at least one data type supported by a first MLD and that is in the memory; and

the transceiver is configured to send ninth indication information to the first MLD, wherein the ninth indication information is used to indicate the buffer status of the bufferable data that corresponds to the at least one data type supported by the first MLD and that is in the memory.

47. A communications apparatus, wherein the apparatus comprises a transceiver and a processor, wherein

the transceiver is configured to receive tenth indication information from a second MLD, wherein the tenth indication information is used to indicate a buffer status of bufferable data that corresponds to at least one data type mapped to at least one link corresponding to the communications apparatus and that is in the second MLD; and

the processor is configured to determine, based on the tenth indication information, the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link and that is in the second MLD.

48. The communications apparatus according to claim 47, wherein the communications apparatus has a plurality of stations; and

the processor is further configured to determine an operating status of at least one station in the plurality of stations based on the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link and that is in the second MLD, wherein the operating status is an active state or a doze state.

49. A communications apparatus, wherein the apparatus comprises a transceiver, a processor, and a memory, wherein

the processor is configured to determine a buffer status of bufferable data that corresponds to at least one data type mapped to at least one link corresponding to a first MLD and that is in the memory; and

the transceiver is configured to send tenth indication information to the first MLD, wherein the tenth indication information is used to indicate the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link corresponding to the first MLD and that is in the memory.

50. A chip system, comprising at least one processor and an interface, wherein

the interface is configured to receive first indication information from a second MLD.

wherein the first indication information is used to indicate a buffer status of bufferable data that corresponds to an association identifier of a first MLD and that is in the second MLD; and

the processor is configured to determine, based on the first indication information and a correspondence between the association identifier and a data type supported by the first MLD, a buffer status of bufferable data that corresponds to the at least one data type and that is in the second MLD.

51. A chip system, comprising at least one memory, at least one processor, and an interface, wherein

the processor is configured to: determine a buffer status of bufferable data that corresponds to at least one data type supported by a first MLD and that is in the memory; and determine, based on the buffer status of the bufferable data that corresponds to the at least one data type and that is in the memory and a correspondence between an association identifier of the first MLD and the data type, a buffer status of bufferable data that corresponds to the association identifier and that is in the memory; and

the interface is configured to send first indication information to the first MLD, wherein the first indication information is used to indicate the buffer status of the bufferable data that corresponds to the association identifier of the first MLD and that is in the memory.

52. A chip system, comprising at least one processor and an interface, wherein

the interface is configured to receive bufferable data from a second MLD over a first link, wherein the bufferable data comprises third indication information, the third indication information is used to indicate whether bufferable data corresponding to at least one second data type is buffered in the second MLD, and the second data type is any data type mapped to the first link; and

the processor is configured to determine, based on the third indication information, whether the bufferable data corresponding to the at least one second data type is buffered in the second MLD.

53. A chip system, comprising at least one memory, at least one processor, and an interface, wherein

the processor is configured to determine whether bufferable data corresponding to at least one second data type is buffered in the memory, wherein the second data type is any data type mapped to a first link; and

the interface is configured to send bufferable data to a first MLD over the first link, wherein the bufferable data comprises third indication information, and the third indication information is used to indicate whether the bufferable data corresponding to the at least one second data type is buffered in the memory.

5 54. A chip system, comprising at least one processor and an interface, wherein the interface is configured to receive, from a second MLD, bufferable data corresponding to a third data type, wherein the bufferable data comprises fifth indication information, and the fifth indication information is used to indicate whether the bufferable data corresponding to the third data type is buffered in the second MLD; and

10 the processor is configured to determine, based on the fifth indication information, whether the bufferable data corresponding to the third data type is buffered in the second MLD.

55. A chip system, comprising at least one memory, at least one processor, and an interface, wherein

15 the processor is configured to determine whether bufferable data corresponding to a third data type is buffered in the memory; and

the interface is configured to send the bufferable data corresponding to the third data type to a first MLD, wherein the bufferable data comprises fifth indication information, and the fifth indication information is used to indicate whether the bufferable data corresponding to the third data type is buffered in the memory.

20 56. A chip system, comprising at least one processor and an interface, wherein the interface is configured to receive seventh indication information from a second MLD, wherein the seventh indication information is used to indicate that bufferable data corresponding to a fifth data type is not buffered in the second MLD, and the fifth data type is any one of data types supported by a first MLD; and

25 the processor is configured to determine, based on the seventh indication information, that the bufferable data corresponding to the fifth data type is not buffered in the second MLD.

57. A chip system, comprising at least one memory, at least one processor, and an interface, wherein

30 the processor is configured to determine that bufferable data corresponding to a fifth data type is not buffered in the memory, wherein the fifth data type is any one of data types supported by a first MLD; and

the interface is configured to send seventh indication information to the first MLD, wherein the seventh indication information is used to indicate that the bufferable data corresponding to the fifth data type is not buffered in the memory.

5 58. A chip system, comprising at least one processor and an interface, wherein the interface is configured to receive eighth indication information from a second MLD through a fourth link, wherein the eighth indication information is used to indicate that bufferable data corresponding to any data type mapped to the fourth link is not buffered in the second MLD; and

10 the processor is configured to determine, based on the eighth indication information, that the bufferable data corresponding to the any data type mapped to the fourth link is not buffered in the second MLD.

59. A chip system, comprising at least one memory, at least one processor, and an interface, wherein

15 the processor is configured to determine that bufferable data corresponding to any data type mapped to a fourth link is not buffered in the memory; and

the interface is configured to send eighth indication information to a first MLD through the fourth link, wherein the eighth indication information is used to indicate that the bufferable data corresponding to the any data type mapped to the fourth link is not buffered in the memory.

60. A chip system, comprising at least one processor and an interface, wherein

20 the interface is configured to receive ninth indication information from a second MLD, wherein the ninth indication information is used to indicate a buffer status of bufferable data that corresponds to at least one data type supported by a first MLD and that is in the second MLD; and

the processor is configured to determine, based on the ninth indication information, the buffer status of the bufferable data that corresponds to the at least one data type and that is in the second

25 MLD.

61. A chip system, comprising at least one memory, at least one processor, and an interface, wherein

the processor is configured to determine a buffer status of bufferable data that corresponds to at least one data type supported by a first MLD and that is in the memory; and

30 the interface is configured to send ninth indication information to the first MLD, wherein the ninth indication information is used to indicate the buffer status of the bufferable data that

corresponds to the at least one data type supported by the first MLD and that is in the memory.

62. A chip system, comprising at least one processor and an interface, wherein the interface is configured to receive tenth indication information from a second MLD, wherein the tenth indication information is used to indicate a buffer status of bufferable data that corresponds to at least one data type mapped to at least one link corresponding to a first MLD and that is in the second MLD; and

the processor is configured to determine, based on the tenth indication information, the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link and that is in the second MLD.

63. A chip system, comprising at least one memory, at least one processor, and an interface, wherein

the processor is configured to determine a buffer status of bufferable data that corresponds to at least one data type mapped to at least one link corresponding to a first MLD and that is in the memory; and

the interface is configured to send tenth indication information to the first MLD, wherein the tenth indication information is used to indicate the buffer status of the bufferable data that corresponds to the at least one data type mapped to the at least one link corresponding to the first MLD and that is in the memory.

64. A computer-readable storage medium, configured to store a computer program, wherein when the computer program is run on a computer, the computer is enabled to perform the method according to any one of claims 1, 3, 5, 7, 9, 11, and 13, or perform the method according to any one of claims 2, 4, 6, 8, 10, 12, and 14.

65. A program, wherein when the program is run on a computer, the computer is enabled to perform the method according to any one of claims 1, 3, 5, 7, 9, 11, and 13, or perform the method according to any one of claims 2, 4, 6, 8, 10, 12, and 14.

66. An apparatus, configured to perform the method according to any one of claims 1, 3, 5, 7, 9, 11, and 13, or perform the method according to any one of claims 2, 4, 6, 8, 10, 12, and 14.

CLAIMS

What is claimed is:

1. A method for determining a data buffer status, wherein the method comprises:

receiving, by a first multi-link device (MLD), bufferable data from a second MLD over a first
5 link, wherein the bufferable data comprises third indication information, the third indication
information is used to indicate whether bufferable data corresponding to at least one second data
type is buffered in the second MLD, and the second data type is any data type mapped to the first
link; and

determining, by the first MLD based on the third indication information, whether the
10 bufferable data corresponding to the at least one second data type is buffered in the second MLD.

2. The method according to claim 1, wherein the first MLD has a plurality of stations, the
method further comprises:

determining, by the first MLD, an operating status of at least one station in the plurality of
15 stations based on whether the bufferable data corresponding to the at least one second data type is
buffered in the second MLD, where the operating status is an active state or a doze state.

3. The method according to claim 2, wherein if the bufferable data corresponding to the at
least one second data type is buffered in the second MLD, the first MLD determines the operating
20 status of the station corresponding to the first link in the plurality of stations as the active state; or
if bufferable data corresponding to any second data type is not buffered in the second MLD, the
first MLD determines the operating status of the station corresponding to the first link in the
plurality of stations as the active state or the doze state.

25 4. The method according to claim 1, wherein the third indication information is further used
to indicate whether bufferable data corresponding to a management frame is buffered in the second
MLD.

5. The method according to claim 1 or 2, wherein the third indication information is more
30 data (More Data) subfield; a value of the More Data subfield is 1, indicating that bufferable data

corresponding to the at least one second data type is buffered in the second MLD; or

a value of the More Data subfield is 0, indicating that bufferable data corresponding to any one second data type is not buffered in the second MLD.

5 6. The method according to claim 1, wherein the method further comprises:
sending, by the first MLD, a power saving polling (PS-Poll) frame to the second MLD.

7. The method according to any one of claims 1 to 6, wherein the method further comprises:
receiving, a fourth indication information from the second MLD, wherein the fourth
10 indication information is used to indicate that no bufferable data corresponding to any one second
data type is buffered in the second MLD.

8. The method according to claim 7, wherein the fourth indication information is a quality of
service null value (QoS Null) frame, where the QoS null frame is a data frame that does not carry
15 a payload, and a value of the More Data subfield in the QoS null frame is 0.

9. A method for determining a data buffer status, wherein the method comprises:
determining, by a second multi-link device (MLD), whether bufferable data corresponding to
at least one second data type is buffered in the second MLD, wherein the second data type is any
20 data type mapped to a first link; and

sending, by the second MLD, bufferable data to a first MLD over the first link, wherein the
bufferable data comprises third indication information, and the third indication information is used
to indicate whether the bufferable data corresponding to the at least one second data type is
buffered in the second MLD.

25 10. The method according to claim 9, wherein the third indication information is further used
to indicate whether bufferable data corresponding to a management frame is buffered in the second
MLD.

30 11. The method according to claim 9 or 10, wherein the third indication information is more
data (More Data) subfield; a value of the More Data subfield is 1, indicating that bufferable data

corresponding to the at least one second data type is buffered in the second MLD; or

a value of the More Data subfield is 0, indicating that bufferable data corresponding to any one second data type is not buffered in the second MLD.

5 12. The method according to any one of claims 9 to 11, wherein the method comprising:
sending, by the second MLD, bufferable data to the first MLD after received the PS-Poll
frame from the first MLD.

10 13. The method according to claim 9, wherein the method further comprising:
sending, a fourth indication information to the second MLD, wherein the fourth indication
information is used to indicate that no bufferable data corresponding to any one second data type
is buffered in the second MLD.

15 14. The method according to claim 13, wherein the fourth indication information is a quality
of service null value (QoS Null) frame, where the QoS null frame is a data frame that does not
carry a payload, and a value of the More Data subfield in the QoS null frame is 0.

20 15. A communications apparatus, wherein the apparatus comprises a transceiver and a
processor, wherein
the transceiver is configured to receive bufferable data from a second MLD over a first link,
wherein the bufferable data comprises third indication information, the third indication
information is used to indicate whether bufferable data corresponding to at least one second data
type is buffered in the second MLD, and the second data type is any data type mapped to the first
link; and

25 the processor is configured to determine, based on the third indication information, whether
the bufferable data corresponding to the at least one second data type is buffered in the second
MLD.

30 16. The communications apparatus according to claim 15, wherein the communications
apparatus has a plurality of stations; and

the processor is further configured to determine an operating status of a station corresponding
to the first link in the plurality of stations based on whether the bufferable data corresponding to

the at least one second data type is buffered in the second MLD, wherein the operating status is an active state or a doze state.

17. The communications apparatus according to claim 16, wherein

the processor is specifically configured to: if the bufferable data corresponding to the at least one second data type is buffered in the second MLD, determine the operating status of the station corresponding to the first link in the plurality of stations as the active state; and

if bufferable data corresponding to any second data type is not buffered in the second MLD, determine the operating status of the station corresponding to the first link in the plurality of stations as the active state or the doze state.

18. The communications apparatus according to claim 15, wherein the third indication information is further used to indicate whether bufferable data corresponding to a management frame is buffered in the second MLD.

19. The communications apparatus according to claim 15 or 16, wherein the third indication information is more data (More Data) subfield; a value of the More Data subfield is 1, indicating that bufferable data corresponding to the at least one second data type is buffered in the second MLD; or

a value of the More Data subfield is 0, indicating that bufferable data corresponding to any one second data type is not buffered in the second MLD.

20. The communications apparatus according to claim 15, wherein wherein the transceiver is further configured to send a power saving polling (PS-Poll) frame to the second MLD.

21. The communications apparatus according to any one of claims 15 to 20, wherein the transceiver is further configured to receive fourth indication information from the second MLD, wherein the fourth indication information is used to indicate that the bufferable data corresponding to the any second data type is not buffered in the second MLD.

22. The communications apparatus according to claim 21, wherein the fourth indication information is a quality of service null value (QoS Null) frame, where the QoS null frame is a data

frame that does not carry a payload, and a value of the More Data subfield in the QoS null frame is 0.

23. A communications apparatus, wherein the apparatus comprises a transceiver, a processor,
5 and a memory, wherein

the processor is configured to determine whether bufferable data corresponding to at least one second data type is buffered in the memory, wherein the second data type is any data type mapped to a first link; and

the transceiver is configured to send bufferable data to a first MLD over the first link, wherein
10 the bufferable data comprises third indication information, and the third indication information is used to indicate whether the bufferable data corresponding to the at least one second data type is buffered in the memory.

24. The communications apparatus according to claim 23, wherein the third indication
15 information is further used to indicate whether bufferable data corresponding to a management frame is buffered in the second MLD.

25. The communications apparatus according to claim 23 or 24, wherein the third indication
20 information is more data (More Data) subfield; a value of the More Data subfield is 1, indicating that bufferable data corresponding to the at least one second data type is buffered in the second MLD; or

a value of the More Data subfield is 0, indicating that bufferable data corresponding to any one second data type is not buffered in the second MLD.

26. The communications apparatus according to any one of claims 23 to 25, wherein
25 transceiver is further configured to receive a PS-Poll frame from the first MLD.

27. The communications apparatus according to claim 26, wherein the transceiver is further
30 configured to send the bufferable data to the first MLD after received the PS-Poll frame from the first MLD.

28. The communications apparatus according to claim 23, wherein the transceiver is further configured to send a fourth indication information to the second MLD, wherein the fourth indication information is used to indicate that no bufferable data corresponding to any one second data type is buffered in the second MLD.

5

29. The communications apparatus according to claim 28, wherein the fourth indication information is a quality of service null value (QoS Null) frame, where the QoS null frame is a data frame that does not carry a payload, and a value of the More Data subfield in the QoS null frame is 0.

10

30. A chip system, comprising at least one processor and an interface, wherein

the interface is configured to receive bufferable data from a second MLD over a first link, wherein the bufferable data comprises third indication information, the third indication information is used to indicate whether bufferable data corresponding to at least one second data type is buffered in the second MLD, and the second data type is any data type mapped to the first link; and

15

the processor is configured to determine, based on the third indication information, whether the bufferable data corresponding to the at least one second data type is buffered in the second MLD.

20

31. A chip system, comprising at least one memory, at least one processor, and an interface, wherein

the processor is configured to determine whether bufferable data corresponding to at least one second data type is buffered in the memory, wherein the second data type is any data type mapped to a first link; and

25

the interface is configured to send bufferable data to a first MLD over the first link, wherein the bufferable data comprises third indication information, and the third indication information is used to indicate whether the bufferable data corresponding to the at least one second data type is buffered in the memory.

30

32. A computer-readable storage medium, configured to store a computer program, wherein when the computer program is run on a computer, the computer is enabled to perform the method according to any one of claims 1-8, or perform the method according to any one of claims 9-14.

33. An apparatus, configured to perform the method according to any one of claims 1-8, or perform the method according to any one of claims 9-14.