

CLAIMS

What is claimed is:

1. A method for reporting buffered data, comprising:

generating, by a station (STA), a first frame, wherein the first frame comprises first
5 information, the first information comprises time information, the time information indicates a
first time, a first buffered data packet needs to be sent within the first time, and the first time is a
time that the first buffered data packet can still wait in a queue; and

sending, by the STA, the first frame.

2. The method according to claim 1, wherein the method further comprises:

10 receiving, by the STA, second information, wherein the second information indicates a first
resource used by the STA to send the first buffered data packet; and

sending, by the STA, the first buffered data packet by using the first resource.

3. The method according to claim 1 or 2, wherein the method further comprises:

determining, by the STA based on the first time, to send the first information.

15 4. The method according to any one of claims 1 to 3, wherein the method further comprises:
receiving, by the STA, a buffer status report poll (BSRP), wherein the BSRP indicates whether
the STA sends the first information; and

determining, by the STA based on the BSRP, to send the first information.

5. A method for reporting buffered data, comprising:

20 receiving, by an access point (AP), a first frame from a station (STA), wherein the first frame
comprises first information, the first information comprises time information, the time information
indicates a first time, a first buffered data packet needs to be sent within the first time, and the first
time is a time that the first buffered data packet can still wait in a queue; and

determining, by the AP based on the first frame, whether to allocate, to the STA, a first
25 resource for sending the first buffered data packet.

6. The method according to claim 5, wherein when the AP determines, based on the first frame,
to allocate, to the STA, the first resource for sending the first buffered data packet, the method
further comprises:

30 sending, by the AP, second information to the STA, wherein the second information indicates
the first resource; and

receiving, by the AP, the first buffered data packet sent by the STA by using the first resource.

7. The method according to claim 5 or 6, wherein the method further comprises:

sending, by the AP, a buffer status report poll (BSRP) to the STA, wherein the BSRP indicates
whether the STA sends the first information to the AP.

8. The method according to any one of claims 1 to 7, wherein the first information further comprises first data amount information, and the first data amount information indicates a data amount of the first buffered data packet.

5 9. The method according to any one of claims 1 to 8, wherein the first frame further comprises a first control identifier, and the first control identifier indicates a type of the first information.

10. The method according to claim 9, wherein a length of the first control identifier is 4 bits, and a length of the first information is 26 bits.

11. The method according to claim 9 wherein a length of the first control identifier is 8 bits, and a length of the first information is 22 bits.

10 12. The method according to any one of claims 1 to 8, wherein the first frame further comprises a second control identifier and an extended control identifier, and the second control identifier and the extended control identifier jointly indicate a type of the first information.

15 13. The method according to claim 12, wherein a length of the second control identifier is 4 bits, a length of the extended control identifier is 4 bits, and a length of the first information is 22 bits.

14. The method according to any one of claims 1 to 13, wherein the first information further comprises identification information, and the identification information indicates a first traffic identifier (TID) to which the first buffered data packet belongs, or the identification information indicates a first access category identifier (ACI) to which the first buffered data packet belongs, or
20 the identification information indicates a first transmitting station identification (TSID) to which the first buffered data belongs.

15. The method according to claim 14, wherein the first information further comprises second data amount information, and the second data amount information indicates a total data amount of the first TID to which the first buffered data packet belongs, or the second data amount information
25 indicates a total data amount of the first ACI to which the first buffered data packet belongs, or the second data amount information indicates a total data amount of the first TSID to which the first buffered data packet belongs.

16. The method according to claim 8 or 15, wherein the first information further comprises unit information, and the unit information indicates units of the first data amount information and
30 the second data amount information.

17. An apparatus for reporting buffered data, comprising a unit configured to perform the method according to any one of claims 1 to 16.

18. An apparatus for reporting buffered data, comprising a processor and a transceiver that is internally connected to and communicates with the processor, wherein the processor is configured
35 to generate a first frame, the first frame comprises first information, the first information comprises

time information, the time information indicates a first time, a first buffered data packet needs to be sent within the first time, and the first time is a time that the first buffered data packet can still wait in a queue; and the transceiver is configured to send the first frame.

19. An apparatus for reporting buffered data, comprising a processor and a transceiver that is
5 internally connected to and communicates with the processor, wherein the transceiver is configured to receive a first frame, the first frame comprises first information, the first information comprises time information, the time information indicates a first time, a first buffered data packet needs to be sent within the first time, and the first time is a time that the first buffered data packet can still wait in a queue; and the processor is configured to determine, based on the first frame,
10 whether to allocate, to a STA, a first resource for sending the first buffered data packet.

20. An apparatus for reporting buffered data, comprising a processing circuit and an output interface that is internally connected to and communicates with the processing circuit, wherein the processing circuit is configured to generate a first frame, the first frame comprises first information, the first information comprises time information, the time information indicates a first time, a first
15 buffered data packet needs to be sent within the first time, and the first time is a time that the first buffered data packet can still wait in a queue; and the output interface is configured to send the first frame.

21. An apparatus for reporting buffered data, comprising a processing circuit and an input interface that is internally connected to and communicates with the processing circuit, wherein the
20 input interface is configured to receive a first frame, the first frame comprises first information, the first information comprises time information, the time information indicates a first time, a first buffered data packet needs to be sent within the first time, and the first time is a time that the first buffered data packet can still wait in a queue; and the processing circuit is configured to determine, based on the first frame, whether to allocate, to a STA, a first resource for sending the first buffered
25 data packet.

22. An apparatus, comprising:

at least one processor; and

at least one computer-readable storage medium, wherein the at least one computer-readable storage medium stores instructions, and wherein the instructions, when executed by the at least
30 one processor, cause the apparatus to perform the method in any one of claims 1 to 16.

23. A computer-readable storage medium, configured to store a computer program, wherein the computer program comprises instructions used to perform the method according to any one of claims 1 to 16.

24. A computer program, wherein the computer program comprises instructions used to
35 perform the method according to any one of claims 1 to 16.