CLAIMS

1. A communication method, wherein the method comprises:

generating, by a first station, a first physical layer protocol data unit (PPDU), wherein the first station comprises an access point supporting preemption or a non-access point station supporting preemption, the first PPDU comprises any one or more of a first field, a second field, and a third field, the first field indicates whether a preemption operation is allowed to be performed after sending of the first PPDU is completed, the second field indicates a type of a station that is allowed to perform a preemption operation after sending of the first PPDU is completed, and the third field indicates a number of PPDUs that are sent after sending of the first PPDU is completed and on which a preemption operation is allowed to be performed; and

sending, by the first station, the first PPDU.

2. The method according to claim 1, wherein the first field, the second field, or the third field is carried in a physical layer signal SIG field in the first PPDU or a field in a medium access control layer (MAC) frame header carried in the first PPDU.

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

sending, by the first station, a first window, wherein the first window indicates a longest time for which a station preparing to perform a preemption operation needs to wait, and the first window is an integer greater than or equal to 0.

4. The method according to claim 3, wherein before sending, by the first station, the first window, the method further comprises:

determining, by the first station, a first backoff counter value based on a second window, wherein the second window is an integer greater than 0, and the first backoff counter value is an integer greater than 0 and less than or equal to the second window; and

determining, by the first station, the first window based on the first backoff counter value.

5. The method according to claim 3 or 4, wherein the first window is carried in the physical layer signal SIG field in the first PPDU or the field in the MAC frame header carried in the first PPDU.

6. The method according to claim 1 or 2, wherein when the first field comprised in the first PPDU indicates that the preemption operation is allowed to be performed after sending of the first PPDU is completed, the method further comprises:

sending, by the first station, a second PPDU after a short interframe space (SIFS) after sending of the first PPDU ends, wherein the second PPDU comprises low-latency service data.

7. The method according to any one of claims 1 to 6, wherein the method further comprises:

receiving, by the first station, a third PPDU, wherein the third PPDU is a PPDU that is sent

by a second station and on which a preemption operation is performed, the second station is a station that performs the preemption operation, the third PPDU comprises a fourth field, and the fourth field indicates end information of the preemption operation performed by the second station.

8. The method according to claim 7, wherein the fourth field is carried in any one of the following: a physical layer frame header of the third PPDU, a more data field in a MAC frame header carried in the third PPDU, an aggregation control A-Control field in the MAC frame header carried in the third PPDU, or a reserved field in the MAC frame header carried in the third PPDU.

9. The method according to any one of claims 1 to 8, wherein the first station is the access point supporting preemption, and the method further comprises:

generating, by the first station, first information, wherein the first information indicates maximum duration in which a first type station is allowed to continuously use a channel after the first type station obtains the channel through contention, and the first type station comprises a station supporting preemption; and

sending, by the first station, the first information.

10. The method according to any one of claims 1 to 9, wherein the method further comprises:

generating, by the first station, second information, wherein the second information indicates a maximum time length for sending a PPDU by the first type station; and

sending, by the first station, the second information.

11. The method according to any one of claims 1 to 10, wherein the method further comprises:

generating, by the first station, third information, wherein the third information indicates maximum duration in which a second type station is allowed to continuously use a channel after the second type station obtains the channel through contention, and the second type station comprises a station not supporting preemption; and

sending, by the first station, the third information.

12. A communication method, wherein the method comprises:

receiving, by a second station, a first window from a first station, wherein the first station comprises an access point supporting preemption or a non-access point station supporting preemption, the second station comprises a station preparing to perform a preemption operation, the first window indicates a longest time for which the second station needs to wait to perform a preemption operation, and the first window is an integer greater than or equal to 0; and

determining, by the second station based on the first window, a waiting time to perform the preemption operation.

13. The method according to claim 12, wherein the first window is carried in a physical layer signal SIG field in a first PPDU or a field in a MAC frame header carried in the first PPDU, and the first PPDU is a PPDU sent by the first station.

14. The method according to claim 12 or 13, wherein determining, by the second station based on the first window, the waiting time to perform the preemption operation comprises:

determining, by the second station, a second backoff counter value based on the first window, wherein the second backoff counter value is an integer greater than or equal to 0 and less than or equal to the first window; and

performing, by the second station, the preemption operation when the second backoff counter value decreases to 0.

15. The method according to any one of claims 12 to 14, wherein the method further comprises:

sending, by the second station, a third PPDU, wherein the third PPDU is a PPDU that is sent by the second station and on which a preemption operation is performed, the third PPDU comprises a fourth field, and the fourth field indicates end information of the preemption operation performed by the second station.

16. The method according to claim 15, wherein the fourth field is carried in any one of the following: a physical layer frame header of the third PPDU, a more data field in a MAC frame header carried in the third PPDU, an aggregation control A-Control field in the MAC frame header carried in the third PPDU, or a reserved field in the MAC frame header carried in the third PPDU.

17. The method according to any one of claims 11 to 16, wherein the first station is the access point supporting preemption, and the method further comprises:

receiving, by the second station, first information from the first station, wherein the first information indicates maximum duration in which the second station is allowed to continuously use a channel after the second station obtains the channel through contention.

18. The method according to any one of claims 11 to 17, wherein the method further comprises:

receiving, by the second station, second information from the first station, wherein the second information indicates a maximum time length for sending the PPDU by the second station.

19. A communication apparatus, configured to perform the method according to any one of claims 1 to 18.

20. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program or instructions, and the computer program or the instructions are used to implement the method according to any one of claims 1 to 18.

21. A program which makes a computer to perform a method as claimed in any one of claims 1 to 18.

22. A chip, wherein the chip comprises a processor and an interface, and configured to: invoke, from a memory, a computer program stored in the memory, and run the computer program, to perform the method according to any one of claims 1 to 18.