

CLAIMS

What is claimed is:

1. A communication method, comprising:

obtaining, by a station, STA, a TXOP before a restricted service period arrives;

if a condition is met, the TXOP is not end before the restricted service period arrives.

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

the TXOP is used to transmit a data frame of a first service; or

a transmission time for transmitting a service in the TXOP is less than or equal to a first threshold;

the restricted service period is a time period used for D2D transmission.

3. The method according to claim 2, wherein the first service is low-latency service.

4. The method according to claim 2 or 3, wherein the first service is a service with a preset traffic identifier.

5. The method according to claim 4, wherein the preset traffic identifier is comprised in a TWT element.

6. The method according to any one of claims 1 to 5, wherein the restricted service period is a period of time, and the period of time only services low-latency service.

7. A communication apparatus, wherein the apparatus is applied to a station STA and comprises:

a processing unit, configured to:

obtain a TXOP before a restricted service period arrives;

if a condition is met, the TXOP is not end before the restricted service period arrives.

8. The communication apparatus according to claim 7, wherein the condition comprises:

the TXOP is used to transmit a data frame of a first service; or

a transmission time for transmitting a service in the TXOP is less than or equal to a first threshold;

the restricted service period is a time period used for D2D transmission.

9. The communication apparatus according to claim 8, wherein the first service is low-latency service.

10. The communication apparatus according to claim 8 or 9, wherein the first service is a

service with a preset traffic identifier.

11. The communication apparatus according to claim 10, wherein the preset traffic identifier is comprised in a TWT element.

12. The communication apparatus according to any one of claims 7 to 11, wherein the restricted service period is a period of time, and the period of time only services low-latency service.

13. A communication method, comprising:

if a first condition is met, determining, by a station STA, that a restricted service period ends, wherein the first condition comprises any one or more of the following:

receiving a first frame, wherein the first frame indicates that the restricted service period ends;

receiving no second frame in a preset time period; and

receiving a frame for non-low-latency service communication in a local cell, wherein the local cell is a basic service set BSS to which the STA belongs.

214. The method according to claim 13, wherein the first frame is an extremely high throughput EHT action frame, and an EHT action field in the EHT action frame indicates that the restricted service period ends.

315. The method according to claim 13 or 214, wherein when the first condition comprises: receiving no second frame in the preset time period, before the determining, by a STA, that a restricted service period ends, the method further comprises:

receiving, by the STA, a third frame, wherein the third frame carries a target wake time TWT element; and

the preset time period is determined by a nominal minimum TWT wake duration field and a wake duration unit field in the TWT element.

416. The method according to claim 13, wherein when the first condition comprises: receiving the frame for non-low-latency service communication in the local cell, before the determining, by a STA, that a restricted service period ends, the method further comprises:

receiving, by the STA, a fourth frame, wherein the fourth frame carries a target wake time TWT element; and

the TWT element carries a threshold access class of a non-low-latency service or a preset service identifier of a non-low-latency service, and the non-low-latency service is a service whose access class of the service is lower than or equal to the threshold access class of the non-low-

latency service; or the non-low-latency service is a service whose service identifier is the preset service identifier of the non-low-latency service.

5 ~~5~~17. The method according to claim ~~4~~16, wherein the threshold access class of the non-low-latency service or the preset service identifier of the non-low-latency service is determined by using a broadcast TWT recommendation field in the TWT element.

~~6~~18. The method according to any one of claims ~~13~~ to ~~5~~17, wherein the method further comprises:

 initiating, by the STA, new channel access after determining that the restricted service period ends, or continuing to perform channel access that is suspended before the restricted service period.

10 ~~7~~19. A first communication apparatus, wherein the apparatus is applied to a station STA and comprises:

 a processing unit, configured to: if a first condition is met, determine that a restricted service period ends, wherein the first condition comprises any one or more of the following:

 receiving a first frame, wherein the first frame indicates that the restricted service period ends;

15 receiving no second frame in a preset time period; and

 receiving a frame for non-low-latency service communication in a local cell, wherein the local cell is a basic service set BSS to which the STA belongs.

~~8~~20. The apparatus according to claim ~~7~~19, wherein the first frame is an extremely high throughput EHT action frame, and an EHT action field in the EHT action frame indicates that the
20 restricted service period ends.

~~9~~21. The apparatus according to claim ~~7~~19 or ~~8~~20, wherein the apparatus further comprises:

 a transceiver unit, configured to: when the first condition comprises receiving no second frame in the preset time period, receive a third frame before the STA determines that the restricted service period ends, wherein the third frame carries a target wake time TWT element; and

25 the preset time period is determined by a nominal minimum TWT wake duration field and a wake duration unit field in the TWT element.

~~10~~22. The apparatus according to claim ~~13~~13, wherein the transceiver unit is further configured to:

 when the first condition comprises receiving the frame for non-low-latency service
30 communication in the local cell, receive a fourth frame before the STA determines that the restricted service period ends, wherein the fourth frame carries a target wake time TWT element;

and

the TWT element carries a threshold access class of a non-low-latency service or a preset service identifier of a non-low-latency service, and the non-low-latency service is a service whose access class of the service is lower than or equal to the threshold access class of the non-low-latency service; or the non-low-latency service is a service whose service identifier is the preset service identifier of the non-low-latency service.

~~44~~23. The apparatus according to claim ~~40~~22, wherein the threshold access class of the non-low-latency service or the preset service identifier of the non-low-latency service is determined by using a broadcast TWT recommendation field in the TWT element.

~~42~~24. The apparatus according to any one of claims ~~7~~19 to ~~44~~23, wherein the processing unit is further configured to:

initiate new channel access after determining that the restricted service period ends, or continue to perform channel access that is suspended before the restricted service period.

~~43~~25. A first communication apparatus, comprising a processor, wherein the processor is configured to: if a first condition is met, determine that a restricted service period ends, wherein the first condition comprises any one or more of the following:

receiving a first frame, wherein the first frame indicates that the restricted service period ends;

receiving no second frame in a preset time period; and

receiving a frame for non-low-latency service communication in a local cell, wherein the local cell is a basic service set BSS to which the STA belongs.

~~44~~26. A first communication apparatus, comprising a processing circuit, wherein the processing circuit is configured to: if a first condition is met, determine that a restricted service period ends, wherein the first condition comprises any one or more of the following:

receiving a first frame, wherein the first frame indicates that the restricted service period ends;

receiving no second frame in a preset time period; and

receiving a frame for non-low-latency service communication in a local cell, wherein the local cell is a basic service set BSS to which the STA belongs.

~~45~~27. A computer-readable storage medium, wherein the computer-readable storage medium stores program instructions, and when the program instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 6.

28. A computer-readable storage medium, wherein the computer-readable storage medium

stores program instructions, and when the program instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 13 to 18.

4629. A computer program product comprising program instructions, wherein when the program instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 6.

30. A computer program product comprising program instructions, wherein when the program instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 13 to 28.