CLAIMS

What is claimed is:

1. A resource unit indication method, wherein the method comprises:

receiving, by a station, a trigger frame from an access point, wherein

the trigger frame comprises a resource unit allocation subfield used to indicate to allocate a resource to the station, the resource unit allocation subfield comprises a frequency band range indication and a resource unit indication, the resource unit indication is used to indicate a multi-resource unit (MRU) allocated to the station, and the frequency band range indication is used to indicate a frequency band range in which a smallest resource unit RU in the MRU corresponds to; and

determining, by the station, the allocated MRU based on the frequency band range indication and the resource unit indication.

2. A resource unit indication method, wherein the method comprises:

determining, by an access point, a trigger frame, wherein

the trigger frame comprises a resource unit allocation subfield used to indicate to allocate a resource to a station, the resource unit allocation subfield comprises a frequency band range indication and a resource unit indication, the resource unit indication is used to indicate a multi-resource unit (MRU) allocated to the corresponding station, and the frequency band range indication is used to indicate a frequency band range in which a smallest resource unit RU in the MRU indicated by the resource unit indication corresponds to; and

sending, by the access point, the trigger frame.

3. The method according to claim 1 or 2, wherein

the frequency band range indication is used to indicate 80 MHz in which the smallest resource unit RU in the MRU corresponds to.

4. The method according to any one of claims 1 to 3, wherein

the MRU indicated by the resource unit indication comprises one resource unit (26-tone RU) whose size is 26 subcarriers and one resource unit (52-tone RU) whose size is 52 subcarriers, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 26-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises one RU (106-tone RU) whose

size is 106 subcarriers and one 26-tone RU, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 26-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises one resource unit (484-tone RU) whose size is 484 subcarriers and one resource unit (242-tone RU) whose size is 242 subcarriers, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 242-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises one resource unit (996-tone RU) whose size is 996 subcarriers and one 484-tone RU, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 484-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises two 996-tone RUs and one 484-tone RU, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 484-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises two 996-tone RUs, and the frequency band range indicated by the frequency band range indication is a frequency band range in which one of the 996-tone RUs corresponds to; or

the MRU indicated by the resource unit indication comprises three 996-tone RUs and one 484-tone RU, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 484-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises one 996-tone RU, one 484-tone RU, and one 242-tone RU, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 242-tone RU corresponds to.

5. The method according to claim 1 or 2, wherein

the frequency band range indication is used to indicate 160 MHz in which the smallest resource unit RU in the MRU corresponds to.

6. The method according to claim 5, wherein the MRU indicated by the resource unit indication comprises two resource units (two 996-tone RUs), the size of each 996-tone RU is 996 subcarriers, and one resource unit (484-tone RU) whose size is 484 subcarriers, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 484-tone RU corresponds to.

7. The method according to claim 5 or 6, wherein

if the MRU indicated by the resource unit indication is a (2*996+484)-tone RU, when the 80 MHz indicated by the frequency band range indication is first 80 MHz or second 80 MHz in 320 MHz, it indicates that 240 MHz in which the (2*996+484)-tone RU corresponds to is the first 80 MHz to third 80 MHz in the 320 MHz; or when the 80 MHz indicated by the frequency band range indication is third 80 MHz or fourth 80 MHz in 320 MHz, it indicates that 240 MHz in which the (2*996+484)-tone RU corresponds to is second 80 MHz to the fourth 80 MHz in the 320 MHz.

8. The method according to any one of claims 1 to 7, wherein

indexes of RUs/MRUs of a same size in ascending order correspond to start frequencies of the RUs/MRUs in ascending order.

9. The method according to any one of claims 1 to 7, wherein

indexes of RUs/MRUs of a same size in ascending order correspond to start frequencies, in ascending order, of punctured RUs in a bandwidth in which the RUs/MRUs are located.

10. The method according to any one of claims 1 to 9, wherein the resource unit allocation subfield comprises 9 bits, the frequency band range indication comprises 2 bits, and the resource unit indication comprises 7 bits.

11. The method according to any one of claims 1 to 10, wherein the resource unit indication comprises one index, wherein the index indicates a size of the MRU, or the index indicates a size of the MRU and a relative location of the MRU.

12. The method according to any one of claims 1 to 11, wherein the resource unit indication comprises an index, and the index is one of multiple indexes in the following:

index "68", which indicates a MRU comprising two 484-tone RUs allocated to the one station;

index "69", which indicates a MRU comprising four 996-tone RUs allocated to the one station;

indexes "70-81", each of which indicates a MRU comprising one 52-tone RU and one 26-tone RU allocated to the one station;

indexes "82-89", each of which indicates a MRU comprising one 106-tone RU and one 26-tone RU allocated to the one station;

indexes "90-93", each of which indicates a MRU comprising one 484-tone RU and one 242-tone RU allocated to the one station;

indexes "94-95", each of which indicates a MRU comprising one 996-tone RU and one 484-tone RU allocated to the one station;

indexes "96-99", each of which indicates a MRU comprising one 996-tone RU, one 484-tone RU and one 242-tone RU allocated to the one station;

indexes "96-99", each of which indicates a MRU comprising one 996-tone RU, one 484-tone RU and one 242-tone RU allocated to the one station;

indexes "100-103", each of which indicates a MRU comprising two 996-tone RUs and one 484-tone RU allocated to the one station;

index "104", which indicates a MRU comprising three 996-tone RUs allocated to the one station;

indexes "105-106", each of which indicates a MRU comprising three 996-tone RUs and one 484-tone RU allocated to the one station;

indexes "107-127", each of which reserved.

13. The method according to any one of claims 1 to 12, wherein the resource unit indication comprises an index, an MRU indicated by the resource unit indication corresponds to one or more indexes, and a correspondence between the MRU and a quantity of indexes is one or more of the following:

An MRU comprising two 996-tone RUs correspond to one index;

An MRU comprising four 996-tone RUs corresponds to one index;

An MRU comprising one 52-tone RU and one 26-tone RU corresponds to 12 indexes;

An MRU comprising one 106-tone RU and one 26-tone RU corresponds to eight indexes;

An MRU comprising one 484-tone RU and one 242-tone RU corresponds to four indexes;

An MRU comprising one 996-tone RU and one 484-tone RU corresponds to two indexes;

An MRU comprising two 996-tone RUs and one 484-tone RU corresponds to four indexes;

An MRU comprising three 996-tone RUs and one 484-tone RU corresponds to two indexes;

An MRU comprising three 996-tone RUs corresponds to one index;

An MRU comprising one 996-tone RU, one 484-tone RU, and one 242-tone RU correspond to four indexes.

14. The method according to any one of claims 1 to 13, wherein the frequency band range indication and the resource unit indication are used to indicate a size and a location of the MRU.

15. A communication apparatus, comprising:

a processing unit, configured to determine a trigger frame, wherein

the trigger frame comprises a resource unit allocation subfield used to indicate to allocate a

resource to a station, the resource unit allocation subfield comprises a frequency band range indication and a resource unit indication, the resource unit indication is used to indicate a multi-resource unit MRU allocated to the corresponding station, and the frequency band range indication is used to indicate a frequency band range in which a smallest resource unit RU in the MRU corresponds to; and

a communication unit, configured to send the trigger frame.

16. A communication apparatus, comprising:

a communication unit, configured to receive a trigger frame from an access point, wherein

the trigger frame comprises a resource unit allocation subfield used to indicate to allocate a resource to the station, the resource unit allocation subfield comprises a frequency band range indication and a resource unit indication, the resource unit indication is used to indicate a multi-resource unit MRU allocated to the corresponding station, and the frequency band range indication is used to indicate a frequency band range in which a smallest resource unit RU in the MRU corresponds to; and

a processing unit, configured to determine the allocated MRU based on the frequency band range indication and the resource unit indication.

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

the frequency band range indication is used to indicate 80 MHz in which the smallest resource unit RU in the MRU corresponds to.

18. The communication apparatus according to any one of claims 15 to 17, wherein

the MRU indicated by the resource unit indication comprises one resource unit (26-tone RU) whose size is 26 subcarriers and one resource unit (52-tone RU) whose size is 52 subcarriers, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 26-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises one RU (106-tone RU) whose size is 106 subcarriers and one 26-tone RU, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 26-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises one resource unit (484-tone RU) whose size is 484 subcarriers and one resource unit (242-tone RU) whose size is 242 subcarriers, and the frequency band range indicated by the frequency band range indication is a frequency band

range in which the 242-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises one resource unit (996-tone RU) whose size is 996 subcarriers and one 484-tone RU, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 484-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises two 996-tone RUs and one 484-tone RU, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 484-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises two 996-tone RUs, and the frequency band range indicated by the frequency band range indication is a frequency band range in which one of the 996-tone RUs corresponds to; or

the MRU indicated by the resource unit indication comprises three 996-tone RUs and one 484-tone RU, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 484-tone RU corresponds to; or

the MRU indicated by the resource unit indication comprises one 996-tone RU, one 484-tone RU, and one 242-tone RU, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 242-tone RU corresponds to.

19. The communication apparatus according to claim 15 or 16, wherein

the frequency band range indication is used to indicate 160 MHz in which the smallest resource unit RU in the MRU corresponds to.

20. The communication apparatus according to claim 19, wherein the MRU indicated by the resource unit indication comprises two resource units (two 996-tone RUs), the size of each 996-tone RU is 996 subcarriers, and one resource unit (484-tone RU) whose size is 484 subcarriers, and the frequency band range indicated by the frequency band range indication is a frequency band range in which the 484-tone RU corresponds to.

21. The communication apparatus according to claim 19 or 20, wherein

if the MRU indicated by the resource unit indication is a (2*996+484)-tone RU, when the 80 MHz indicated by the frequency band range indication is first 80 MHz or second 80 MHz in 320 MHz, it indicates that 240 MHz in which the (2*996+484)-tone RU corresponds to is the first 80 MHz to third 80 MHz in the 320 MHz; or when the 80 MHz indicated by the frequency band range indication is third 80 MHz or fourth 80 MHz in 320 MHz, it indicates that 240 MHz in which the

(2*996+484)-tone RU corresponds to is second 80 MHz to the fourth 80 MHz in the 320 MHz.

22. The communication apparatus according to any one of claims 15 to 21, wherein

indexes of RUs/MRUs of a same size in ascending order correspond to start frequencies of the RUs/MRUs in ascending order.

23. The communication apparatus according to any one of claims 15 to 21, wherein

indexes of RUs/MRUs of a same size in ascending order correspond to start frequencies, in ascending order, of punctured RUs in a bandwidth in which the RUs/MRUs are located.

24. The communication apparatus according to any one of claims 15 to 23, wherein the resource unit allocation subfield comprises 9 bits, the frequency band range indication comprises 2 bits, and the resource unit indication comprises 7 bits.

25. The communication apparatus according to any one of claims 15 to 24, wherein the resource unit indication comprises one index, wherein the index indicates a size of the MRU, or the index indicates a size of the MRU and a relative location of the MRU.

26. The communication apparatus according to any one of claims 15 to 25, wherein the resource unit indication comprises an index, and the index is one of multiple indexes in the following:

index "68", which indicates a MRU comprising two 484-tone RUs allocated to the one station;

index "69", which indicates a MRU comprising four 996-tone RUs allocated to the one station;

indexes "70-81", each of which indicates a MRU comprising one 52-tone RU and one 26-tone RU allocated to the one station;

indexes "82-89", each of which indicates a MRU comprising one 106-tone RU and one 26-tone RU allocated to the one station;

indexes "90-93", each of which indicates a MRU comprising one 484-tone RU and one 242-tone RU allocated to the one station;

indexes "94-95", each of which indicates a MRU comprising one 996-tone RU and one 484-tone RU allocated to the one station;

indexes "96-99", each of which indicates a MRU comprising one 996-tone RU, one 484-tone RU and one 242-tone RU allocated to the one station;

indexes "96-99", each of which indicates a MRU comprising one 996-tone RU, one 484-tone RU and one 242-tone RU allocated to the one station;

indexes "100-103", each of which indicates a MRU comprising two 996-tone RUs and one

484-tone RU allocated to the one station;

index "104", which indicates a MRU comprising three 996-tone RUs allocated to the one station;

indexes "105-106", each of which indicates a MRU comprising three 996-tone RUs and one 484-tone RU allocated to the one station;

indexes "107-127", each of which reserved.

27. The communication apparatus according to any one of claims 15 to 26, wherein the resource unit indication comprises an index, an MRU indicated by the resource unit indication corresponds to one or more indexes, and a correspondence between the MRU and a quantity of indexes is one or more of the following:

An MRU comprising two 996-tone RUs correspond to one index;

An MRU comprising four 996-tone RUs corresponds to one index;

An MRU comprising one 52-tone RU and one 26-tone RU corresponds to 12 indexes;

An MRU comprising one 106-tone RU and one 26-tone RU corresponds to eight indexes;

An MRU comprising one 484-tone RU and one 242-tone RU corresponds to four indexes;

An MRU comprising one 996-tone RU and one 484-tone RU corresponds to two indexes;

An MRU comprising two 996-tone RUs and one 484-tone RU corresponds to four indexes;

An MRU comprising three 996-tone RUs and one 484-tone RU corresponds to two indexes;

An MRU comprising three 996-tone RUs corresponds to one index;

An MRU comprising one 996-tone RU, one 484-tone RU, and one 242-tone RU correspond to four indexes.

28. The communication apparatus according to any one of claims 15 to 27, wherein the frequency band range indication and the resource unit indication are used to indicate a size and a location of the MRU.

29. A computer-readable storage medium, wherein the computer-readable storage medium is configured to store instructions, and when the instructions are executed, the method according to any one of claims 1 to 14 is implemented.

30. A chip, comprising at least one processor and an interface, wherein the interface is configured to obtain a computer program, and the processor is configured to invoke the computer program to perform the method according to any one of claims 1 to 14.

31. A communication apparatus, comprising:

a processor and a memory, wherein the memory is configured to store instructions or a computer program, and the processor is configured to execute the computer program or the instructions stored in the memory, so that the communication apparatus performs the method according to any one of claims 1 to 14.