

CLAIMS

What is claimed is:

1. ~~A wireless communication method, comprising:~~

5 ~~receiving first information, wherein the first information comprises indication information of a first pattern, the first pattern is one of a plurality of patterns, each of the plurality of patterns indicates distribution of at least one resource in frequency domain, and the at least one resource comprises at least one of the following resources: a first resource, a second resource, and a third resource, wherein the first resource is a definitely available resource, the second resource is an unavailable resource, availability of the third resource is determined by first indication information, the first indication information is sent by a first network device, and resource distribution indicated~~
10 ~~by any two patterns is different; and~~

~~communicating with a second network device and/or a terminal device based on the first pattern.~~

2. ~~The method according to claim 1, wherein the communicating with a second network device and/or a terminal device based on the first pattern comprises:~~
15 ~~communicating with the second network device and/or the terminal device on a first time domain resource based on the first pattern.~~

3. ~~The method according to claim 2, wherein the method further comprises:~~
20 ~~receiving second information, wherein the second information indicates the first time domain resource.~~

4. ~~The method according to any one of claims 1 to 3, wherein a configuration of each pattern comprises a frequency domain resource bandwidth of the at least one resource, each pattern has corresponding pattern identification information, and identification information of any two patterns is different.~~
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5. ~~The method according to claim 4, wherein the configuration of each pattern further comprises a frequency domain resource attribute of the at least one resource, and each frequency domain resource attribute is one of the first resource, the second resource, and the third resource.~~

6. ~~The method according to claim 4 or 5, wherein a configuration of the frequency domain resource bandwidth comprises a start resource block number of the at least one resource and a quantity of resource blocks of the at least one resource, and the frequency domain resource bandwidth is configured by a donor network device, or the frequency domain resource bandwidth is predefined in a protocol.~~
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7. ~~The method according to any one of claims 1 to 6, wherein the first information comprises identification information of at least one pattern set, the identification information of the at least~~

one pattern set is used to determine at least one target pattern set, the at least one target pattern set comprises the first pattern, a configuration of each pattern set comprises at least one of the plurality of patterns, each pattern set has corresponding pattern set identification information, and identification information of any two pattern sets is different.

8. The method according to any one of claims 1 to 7, wherein the method further comprises: receiving third information, wherein the third information is used to configure at least one first slot; and

mapping at least one first pattern to the at least one first slot.

9. The method according to claim 8, wherein the first slot is a slot in a first time domain periodicity, or the first slot is a slot corresponding to a time domain resource being a fourth resource in a first time domain periodicity, wherein the first time domain periodicity corresponds to a configuration periodicity of the first time domain resource, availability of the fourth resource is determined by second indication information, and the second indication information is sent by the first network device.

10. The method according to claim 8 or 9, wherein a quantity of the at least one pattern is the same as a quantity of first slots, or a quantity of the at least one pattern is a positive integer multiple of a quantity of first slots, or a quantity of the at least one pattern is less than a quantity of first slots.

11. The method according to any one of claims 1 to 10, wherein the method further comprises: receiving fourth information, wherein the fourth information indicates resource availability of the third resource.

12. The method according to claim 11, wherein the fourth information further indicates resource availability of the fourth resource.

13. The method according to any one of claims 8 to 12, wherein the method further comprises: receiving fifth information, wherein the fifth information indicates grouping information of a frequency domain resource corresponding to the first slot; and

receiving sixth information, wherein the sixth information indicates a resource attribute of at least one frequency domain resource group.

14. The method according to any one of claims 8 to 13, wherein the method further comprises: obtaining a first relationship and/or a second relationship, wherein the first relationship is a correspondence between a first parameter and indication information of availability of the first resource, the first relationship indicates resource availability of the first slot, the second relationship is a correspondence between a second parameter and indication information of availability of the second resource, and the second relationship indicates resource availability of the frequency domain resource of the first slot; and

determining the first pattern based on the first relationship and/or the second relationship.

15. The method according to claim 14, wherein the method further comprises:

receiving seventh information, wherein the seventh information comprises identification information of at least one indication set, the identification information of the at least one indication set is used to determine at least one target indication set, the at least one target indication set comprises the first parameter and/or the second parameter, and identification information of any two indication sets is different; and

determining resource attributes of one or more frequency domain resources of the at least one first slot based on the at least one target indication set.

16. A wireless communication method, comprising:

sending first information, wherein the first information comprises indication information of a first pattern, the first pattern is one of a plurality of patterns, each of the plurality of patterns indicates distribution of at least one resource in frequency domain, and the at least one resource comprises at least one of the following resources: a first resource, a second resource, and a third resource, wherein the first resource is a definitely available resource, the second resource is an unavailable resource, availability of the third resource is determined by first indication information, the first indication information is sent by a first network device, and resource distribution indicated by any two patterns is different; and

communicating with a first node and/or a terminal device based on the first pattern, wherein the first node is a relay node.

17. The method according to claim 16, wherein the communicating with a first node and/or a terminal device based on the first pattern comprises:

communicating with the first node and/or the terminal device on a first time domain resource based on the first pattern.

18. The method according to claim 17, wherein the method further comprises:

sending second information, wherein the second information indicates the first time domain resource.

19. The method according to any one of claims 16 to 18, wherein a configuration of each pattern comprises a frequency domain resource bandwidth of the at least one resource, each pattern has corresponding pattern identification information, and identification information of any two patterns is different.

20. The method according to claim 19, wherein the configuration of each pattern further comprises a frequency domain resource attribute of the at least one resource, and each frequency domain resource attribute is one of the first resource, the second resource, and the third resource.

21. The method according to claim 19 or 20, wherein a configuration of the frequency domain

resource bandwidth comprises a start resource block number of the at least one resource and a quantity of resource blocks of the at least one resource, and the frequency domain resource bandwidth is configured by a donor network device, or the frequency domain resource bandwidth is predefined in a protocol.

22. The method according to any one of claims 16 to 21, wherein the first information comprises identification information of at least one pattern set, the identification information of the at least one pattern set is used to determine at least one target pattern set, the at least one target pattern set comprises the first pattern, a configuration of each pattern set comprises at least one of the plurality of patterns, each pattern set has corresponding pattern set identification information, and identification information of any two pattern sets is different.

23. The method according to any one of claims 16 to 22, wherein the method further comprises:

sending third information, wherein the third information is used to configure at least one first slot; and

mapping at least one first pattern to the at least one first slot.

24. The method according to claim 23, wherein the first slot is a slot in a first time domain periodicity, or the first slot is a slot corresponding to a time domain resource being a fourth resource in a first time domain periodicity, wherein the first time domain periodicity corresponds to a configuration periodicity of the first time domain resource, availability of the fourth resource is determined by second indication information, and the second indication information is sent by the first network device.

25. The method according to claim 23 or 24, wherein a quantity of the at least one pattern is the same as a quantity of first slots, or a quantity of the at least one pattern is a positive integer multiple of a quantity of first slots, or a quantity of the at least one pattern is less than a quantity of first slots.

26. The method according to any one of claims 16 to 25, wherein the method further comprises:

sending fourth information, wherein the fourth information indicates resource availability of the third resource.

27. The method according to claim 26, wherein the fourth information further indicates resource availability of the fourth resource.

28. The method according to any one of claims 23 to 27, wherein the method further comprises:

sending fifth information, wherein the fifth information indicates grouping information of a frequency domain resource corresponding to the first slot; and

~~sending sixth information, wherein the sixth information indicates a resource attribute of at least one frequency domain resource group.~~

~~29. The method according to any one of claims 23 to 28, wherein the method further comprises:~~

~~obtaining a first relationship and/or a second relationship, wherein the first relationship is a correspondence between a first parameter and indication information of availability of the first resource, the first relationship indicates resource availability of the first slot, the second relationship is a correspondence between a second parameter and indication information of availability of the second resource, and the second relationship indicates resource availability of the frequency domain resource of the first slot; and~~

~~determining the first pattern based on the first relationship and/or the second relationship.~~

~~30. The method according to claim 29, wherein the method further comprises:~~

~~sending seventh information, wherein the seventh information comprises identification information of at least one indication set, the identification information of the at least one indication set is used to determine at least one target indication set, the at least one target indication set comprises the first parameter and/or the second parameter, and identification information of any two indication sets is different; and~~

~~determining resource attributes of one or more frequency domain resources of the at least one first slot based on the at least one target indication set.~~

~~31. A wireless communication method, comprising:~~

~~receiving configuration information, wherein the configuration information indicates resource availability, the configuration information comprises identification information of a plurality of indication sets, and each indication set comprises availability indications of a plurality of time domain resources and/or frequency domain resources; and~~

~~determining availability of the frequency domain resource and/or the time domain resource based on the configuration information.~~

2. The method according to claim 1, wherein the availability indication of the frequency domain resource comprises a resource availability indication of at least one RB set group, and each RB set group comprises a resource availability indication of an RB set group of at least one slot.

3. The method according to claim 1, wherein the availability indication of the frequency domain resource comprises a resource availability indication of at least one slot, the at least one slot comprises a first slot, and the first slot further comprises a resource availability indication of at least one RB set group.

4. The method according to any one of claims 1 to 3, wherein the plurality of indication sets comprise a first indication set and a second indication set, the first indication set corresponds to

the time domain resource, the second indication set corresponds to the availability indication of the frequency domain resource, and identification information of the first indication set is different from identification information of the second indication set.

5 325. A wireless communication method, comprising:

sending configuration information, wherein the configuration information indicates resource availability, the configuration information comprises identification information of a plurality of indication sets, and each indication set comprises availability indications of a plurality of time domain resources and/or frequency domain resources; and

10 determining availability of the frequency domain resource and/or the time domain resource based on the configuration information.

336. The method according to claim 31-5or-32, wherein the availability indication of the frequency domain resource comprises a resource availability indication of at least one RB set group, and each RB set group comprises a resource availability indication of an RB set group of
15 at least one slot.

347. The method according to claim 31-5or-32, wherein the availability indication of the frequency domain resource comprises a resource availability indication of at least one slot, the at least one slot comprises a first slot, and the first slot further comprises a resource availability indication of at least one RB set group.

20 358. The method according to ~~any one of claims 5 to 7~~any one of claims 31 to 34, wherein the plurality of indication sets comprise a first indication set and a second indication set, the first indication set corresponds to the time domain resource, the second indication set corresponds to the availability indication of the frequency domain resource, and identification information of the first indication set is different from identification information of the second indication set.

25 9. A device, comprising:

a processor; and

a non-transitory computer-readable storage medium storing a program to be executed by the processor, the program including instructions to:

receive configuration information, wherein the configuration information indicates resource availability, the configuration information comprises identification information of a plurality of indication sets, and each indication set comprises availability indications of a plurality of time domain resources and/or frequency domain resources; and
30 determine availability of the frequency domain resource and/or the time domain resource based on the configuration information.

35 10. The device according to claim 9, wherein the availability indication of the frequency

domain resource comprises a resource availability indication of at least one RB set group, and each RB set group comprises a resource availability indication of an RB set group of at least one slot.

11. The device according to claim 9, wherein the availability indication of the frequency domain resource comprises a resource availability indication of at least one slot, the at least one slot comprises a first slot, and the first slot further comprises a resource availability indication of at least one RB set group.

12. The device according to any one of claims 9 to 11, wherein the plurality of indication sets comprise a first indication set and a second indication set, the first indication set corresponds to the time domain resource, the second indication set corresponds to the availability indication of the frequency domain resource, and identification information of the first indication set is different from identification information of the second indication set.

13. A device, comprising:
a processor; and
a non-transitory computer-readable storage medium storing a program to be executed by the processor, the program including instructions to:

send configuration information, wherein the configuration information indicates resource availability, the configuration information comprises identification information of a plurality of indication sets, and each indication set comprises availability indications of a plurality of time domain resources and/or frequency domain resources; and

determine availability of the frequency domain resource and/or the time domain resource based on the configuration information.

14. The device according to claim 13, wherein the availability indication of the frequency domain resource comprises a resource availability indication of at least one RB set group, and each RB set group comprises a resource availability indication of an RB set group of at least one slot.

15. The device according to claim 13, wherein the availability indication of the frequency domain resource comprises a resource availability indication of at least one slot, the at least one slot comprises a first slot, and the first slot further comprises a resource availability indication of at least one RB set group.

16. The device according to any one of claims 13 to 15, wherein the plurality of indication sets comprise a first indication set and a second indication set, the first indication set corresponds to the time domain resource, the second indication set corresponds to the availability indication of the frequency domain resource, and identification information of the first indication set is different from identification information of the second indication set.

17. A wireless communication apparatus, comprising:
units configured to implement the method according to any one of claims 1 to 4.

18. A wireless communication apparatus, comprising:
units configured to implement the method according to any one of claims 5 to 8.

19. A wireless communication system, comprising:
the first node and/or the terminal device according to any one of claims 1 to 4; or
the network device according to any one of claims 5 to 8.

20. A computer-readable storage medium, wherein
the computer-readable storage medium stores a computer program, and when the computer
program is run on a computer,

the computer is enabled to perform the method according to any one of claims 1 to 4; or

the computer is enabled to perform the method according to any one of claims 5 to 8.~~36. A~~
~~wireless communication apparatus, comprising:~~

~~units configured to implement the method according to any one of claims 1 to 15, 31, and 33~~
~~to 35.~~

~~37. A wireless communication apparatus, comprising:~~

~~units configured to implement the method according to any one of claims 16 to 30, 32, and~~
~~33 to 35.~~

~~38. A wireless communication apparatus, comprising a processor, wherein the processor is~~
~~coupled to a memory, and the processor is configured to execute a computer program stored in the~~
~~memory, so that the apparatus performs the method according to any one of claims 1 to 15 or that~~
~~the apparatus performs the method according to any one of claims 16 to 30.~~

~~39. A wireless communication system, comprising:~~

~~the first node and/or the terminal device according to any one of claims 1 to 15, 31, and 33 to~~
~~35; or~~

~~the network device according to any one of claims 16 to 30, 32, and 33 to 35.~~

~~40. A computer readable storage medium, wherein~~

~~the computer readable storage medium stores a computer program, and when the computer~~
~~program is run on a computer,~~

~~the computer is enabled to perform the method according to any one of claims 1 to 15, 31,~~
~~and 33 to 35; or~~

~~the computer is enabled to perform the method according to any one of claims 16 to 30, 32,~~
~~and 33 to 35.~~