## CLAIMS

What is claimed is:

1. A transmission timing determining method, comprising:

receiving, by a first node, configuration information from a second node, wherein the configuration information comprises an association relationship between a time unit index and a timing type;

determining, by the first node based on the association relationship, a first timing type associated with a first time unit; and

determining, by the first node based on the first timing type, a transmission timing for performing uplink transmission in the first time unit.

2. The method according to claim 1, wherein the first timing type comprises any one of timing type 1, timing type 2 and timing type 3.

3. The method according to claim 2, wherein the bits corresponding to the timing type 1 is 00, the bits corresponding to the timing type 2 is 01, the bits corresponding to the timing type 3 is 10.

4. The method according to any one of claims 1 to 3, wherein the association relationship between the time unit index and the timing type indicate some time units in a system frame, a timing type for an unindicated time unit in the system frame is a default timing type.

5. The method according to any one of claims 1 to 4, wherein the time unit index is an index determined at a reference subcarrier spacing; and

the determining, by the first node based on the association relationship, a first timing type associated with a first time unit comprises:

determining, by the first node, the first timing type associated with the first time unit based on the reference subcarrier spacing, a subcarrier spacing corresponding to the first time unit, and the association relationship.

6. The method according to claim 5, wherein the determining, by the first node, the first timing type associated with the first time unit based on the reference subcarrier spacing, a subcarrier spacing corresponding to the first time unit, and the association relationship comprises:

determining, by the first node based on the subcarrier spacing corresponding to the first time unit, a first time unit index that corresponds to the first time unit and that is at the reference

subcarrier spacing; and

determining, by the first node based on the association relationship, the first timing type associated with the first time unit index.

7. The method according to claim 5 or 6, wherein the reference subcarrier spacing is a subcarrier spacing of a serving carrier of the first node;

the reference subcarrier spacing is a subcarrier spacing of an active bandwidth part BWP of the first node; or

the reference subcarrier spacing is a subcarrier spacing indicated by an instruction from the second node.

8. The method according to any one of claims 1 to 7, wherein the first timing type comprises any one of the following:

an uplink transmission timing is determined based on timing advance TA indication information from the second node;

an uplink sending timing of a mobile termination MT of the first node is aligned with a downlink sending timing of a distributed unit DU of the first node; or

an uplink receiving timing of the DU of the first node is aligned with a downlink receiving timing of the MT of the first node.

9. The method according to any one of claims 1 to 8, wherein the association relationship between the time unit index and the timing type is associated with an uplink transmission type, and the uplink transmission type comprises one or more of a physical uplink shared channel PUSCH, a physical uplink control channel PUCCH, or a sounding reference signal SRS.

10. A transmission timing determining method, comprising:

receiving, by a first node, control information from a second node, wherein the control information comprises scheduling information of uplink transmission, and the control signaling comprises first scrambling information;

determining, by the first node, a first timing type associated with the first scrambling information; and

determining, by the first node, a transmission timing of the uplink transmission based on the first timing type.

11. The method according to claim 10, wherein the method further comprises: receiving, by the first node from a donor node, an association relationship between scrambling information and

a timing type; and

the determining, by the first node, a first timing type associated with the first scrambling information comprises: determining, by the first node based on the association relationship, the first timing type associated with the first scrambling information.

12. The method according to claim 10 or 11, wherein the first timing type comprises any one of the following:

an uplink transmission timing is determined based on timing advance TA indication information from the second node;

an uplink sending timing of a mobile termination MT of the first node is aligned with a downlink sending timing of a distributed unit DU of the first node; or

an uplink receiving timing of the MT of the first node is aligned with a downlink receiving timing of the DU of the first node.

13. The method according to any one of claims 10 to 12, wherein the uplink transmission is PUSCH transmission; and

the method further comprises:

sending, by the first node, a physical uplink control channel PUCCH and/or an uplink sounding reference signal SRS, wherein when the PUCCH and/or the SRS and a PUSCH are located in a same slot, a transmission timing of the PUCCH and/or the SRS is determined based on the first timing type.

14. The method according to claim 13, wherein the method further comprises:

if no PUSCH transmission exists in a transmission slot of the PUCCH and/or the SRS, determining the transmission timing of the PUCCH and/or the SRS based on a default timing type.

15. The method according to any one of claims 10 to 14, wherein the control information is used to activate preconfigured granted PUSCH transmission.

16. A transmission timing determining method, comprising:

receiving, by a first node, control information from a second node, wherein the control information comprises scheduling information of sounding reference signal SRS transmission, the control signaling comprises first information, and the first information indicates an SRS transmission configuration;

determining, by the first node, a first timing type associated with the first information; and

determining, by the first node, a transmission timing of uplink transmission based on the first

timing type.

17. The method according to claim 16, wherein the first information further indicates the first timing type.

18. The method according to claim 16, wherein an association relationship between the first information and the first timing type is specified in a protocol.

19. A transmission timing determining apparatus, applied to a first node, and comprising:

a communication module, configured to receive configuration information from a second node, wherein the configuration information comprises an association relationship between a time unit index and a timing type; and

a processing module, configured to: determine, based on the association relationship, a first timing type associated with a first time unit, and determine, based on the first timing type, a transmission timing for performing uplink transmission in the first time unit.

20. The apparatus according to claim 19, wherein the first timing type comprises any one of timing type 1, timing type 2 and timing type 3.

21. The apparatus according to claim 20, wherein the bits corresponding to the timing type 1 is 00, the bits corresponding to the timing type 2 is 01, the bits corresponding to the timing type 3 is 10.

22. The apparatus according to claim 19, wherein the association relationship between the time unit index and the timing type indicate some time units in a system frame, a timing type for an unindicated time unit in the system frame is a default timing type.

23. The apparatus according to claim 19, wherein the time unit index is an index determined at a reference subcarrier spacing; and

when determining, based on the association relationship, the first timing type associated with the first time unit, the processing module is specifically configured to:

determine the first timing type associated with the first time unit based on the reference subcarrier spacing, a subcarrier spacing corresponding to the first time unit, and the association relationship.

24. The apparatus according to claim 23, wherein when determining the first timing type associated with the first time unit based on the reference subcarrier spacing, the subcarrier spacing corresponding to the first time unit, and the association relationship, the processing module is specifically configured to:

determine, based on the subcarrier spacing corresponding to the first time unit, a first time unit index that corresponds to the first time unit and that is at the reference subcarrier spacing; and

determine, based on the association relationship, the first timing type associated with the first time unit index.

25. The apparatus according to claim 23 or 24, wherein the reference subcarrier spacing is a subcarrier spacing of a serving carrier of the first node;

the reference subcarrier spacing is a subcarrier spacing of an active bandwidth part BWP of the first node; or

the reference subcarrier spacing is a subcarrier spacing indicated by an instruction from the second node.

26. The apparatus according to any one of claims 19 to 25, wherein the first timing type comprises any one of the following:

an uplink transmission timing is determined based on timing advance TA indication information from the second node;

an uplink sending timing of a mobile termination MT of the first node is aligned with a downlink sending timing of a distributed unit DU of the first node; or

an uplink receiving timing of the DU of the first node is aligned with a downlink receiving timing of the MT of the first node.

27. The apparatus according to any one of claims 19 to 26, wherein the association relationship between the time unit index and the timing type is associated with an uplink transmission type, and the uplink transmission type comprises one or more of a physical uplink shared channel PUSCH, a physical uplink control channel PUCCH, or a sounding reference signal SRS.

28. A transmission timing determining apparatus, applied to a first node, and comprising:

a communication module, configured to receive control information from a second node, wherein the control information comprises scheduling information of uplink transmission, and the control signaling comprises first scrambling information; and

a processing module, configured to: determine a first timing type associated with the first scrambling information, and determine a transmission timing of the uplink transmission based on the first timing type.

29. The apparatus according to claim 28, wherein the communication module is further

configured to receive, from a donor node, an association relationship between scrambling information and a timing type; and

when determining the first timing type associated with the first scrambling information, the processing module is configured to determine, based on the association relationship, the first timing type associated with the first scrambling information.

30. The apparatus according to claim 28 or 29, wherein the first timing type comprises any one of the following:

an uplink transmission timing is determined based on timing advance TA indication information from the second node;

an uplink sending timing of a mobile termination MT of the first node is aligned with a downlink sending timing of a distributed unit DU of the first node; or

an uplink receiving timing of the MT of the first node is aligned with a downlink receiving timing of the DU of the first node.

31. The apparatus according to any one of claims 28 to 30, wherein the uplink transmission is PUSCH transmission; and

the communication module is further configured to:

send a physical uplink control channel PUCCH and/or an uplink sounding reference signal SRS, wherein when the PUCCH and/or the SRS and a PUSCH are located in a same slot, a transmission timing of the PUCCH and/or the SRS is determined based on the first timing type.

32. The apparatus according to claim 31, wherein the processing module is further configured to:

if no PUSCH transmission exists in a transmission slot of the PUCCH and/or the SRS, determine the transmission timing of the PUCCH and/or the SRS based on a default timing type.

33. The apparatus according to any one of claims 28 to 32, wherein the control information is used to activate preconfigured granted PUSCH transmission.

34. A transmission timing determining apparatus, comprising:

a communication module, configured to receive control information from a second node, wherein the control information comprises scheduling information of sounding reference signal SRS transmission, the control signaling comprises first information, and the first information indicates an SRS transmission configuration; and

a processing module, configured to: determine a first timing type associated with the first

information, and determine a transmission timing of uplink transmission based on the first timing type.

35. The apparatus according to claim 34, wherein the first information further indicates the first timing type.

36. The apparatus according to claim 34, wherein an association relationship between the first information and the first timing type is specified in a protocol.

37. A communication apparatus, comprising a processor and a communication interface, wherein the communication interface is configured to communicate with another communication apparatus, and the processor is configured to run a group of programs, to enable the communication apparatus to implement the method according to any one of claims 1 to 9, the method according to any one of claims 10 to 15, or the method according to any one of claims 16 to 18.

38. A chip system, wherein the chip system comprises a processor, the processor is configured to be coupled to a memory, and the processor is configured to invoke a program to implement the method according to any one of claims 1 to 9, the method according to any one of claims 10 to 15, or the method according to any one of claims 16 to 18.

39. A computer-readable storage medium, wherein the computer storage medium stores computer-readable instructions, and when the computer-readable instructions are run on a communication apparatus, the communication apparatus is enabled to perform the method according to any one of claims 1 to 9, the method according to any one of claims 10 to 15, or the method according to any one of claims 16 to 18.