CLAIMS

1. A sequence number SN synchronization method for multicast broadcast service, performed by a terminal and comprising:

obtaining a first radio interface SN of a first multicast broadcast service received in a first cell and a second radio interface SN of the first multicast broadcast service received in a second cell; and

sorting data packets of the first multicast broadcast service according to the first radio interface SN and the second radio interface SN; wherein

the first radio interface SN and the second radio interface SN are in a same SN set, and the first radio interface SN and the second radio interface SN are at least partially different.

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

in a case that the data packets of the first multicast broadcast service are inconsecutive, determining that a data packet in the first multicast broadcast service is missing; and

in a case that the first multicast broadcast service does not support reordering of the data packets, skipping starting a reordering timer at a gap when the missing data packet is detected; or

in a case that the first multicast broadcast service supports reordering of the data packets, starting a reordering timer at a gap when the missing data packet is detected.

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

receiving first information, wherein the first information indicates information about the missing data packet for the first multicast broadcast service.

4. The method according to claim 3, wherein the receiving first information comprises:

receiving a data packet previous to or next to the missing data packet, wherein a header of the data packet previous to or next to the missing data packet carries the first information;

or

receiving a control PDU, wherein the control PDU carries the first information.

5. An SN synchronization method for multicast broadcast service, performed by a radio access network node and comprising:

obtaining a radio interface SN of a first multicast broadcast service in a first mode, wherein the first mode is the same as a mode in which another radio access network node in a same multicast group obtains a radio interface SN of the first multicast broadcast service.

6. The method according to claim 5, wherein the obtaining a radio interface SN of a first multicast broadcast service in a first mode comprises:

obtaining the radio interface SN of the first multicast broadcast service according to a first SN; wherein

the first SN is a transmission channel SN of a multicast broadcast service protocol data unit session MBS PDU session at an interface between a core network node and the radio access network node, or an SN of a quality of service flow QoS flow in an MBS PDU session.

7. The method according to claim 6, wherein the MBS PDU session comprises a plurality of QoS flows, wherein

in a case that the radio access network node maps each QoS flow in the MBS PDU session to a different MRB, the first SN is an SN of the QoS flow;

or

in a case that the radio access network node maps all the QoS flows in the MBS PDU session to one MRB, the first SN is a transmission channel SN of the MBS PDU session;

or

in a case that the radio access network node maps a first QoS flow in the MBS PDU session to one MRB, the first SN is an SN of the first QoS flow; and in a case that the radio access network node maps remaining QoS flows in the MBS PDU session other than the first QoS flow to one data radio bearer, the first SN is a transmission channel SN of the MBS PDU session;

or

in a case that at least part of the QoS flows in the MBS PDU session have no SN, the first SN is a transmission channel SN of the MBS PDU session.

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

the radio interface SN is equal to the first SN;

or

the radio interface SN is equal to a modulus of the sum of the first SN and an offset;

or

the radio interface SN is equal to a specified number of bits of the first SN;

or

the radio interface SN is equal to a specified number of bits of the first SN and a padding bit, the padding bit being a specified value.

9. The method according to claim 8, wherein that the radio interface SN is equal to a specified number of bits of the first SN comprises:

in a case that a length of the first SN is greater than a length of the radio interface SN, the radio interface SN is equal to N least significant bits of the first SN, wherein N is a bit length of the radio interface SN.

10. The method according to claim 8, wherein that the radio interface SN is equal to a specified number of bits of the first SN and a padding bit, the padding bit being a specified value, comprises:

in a case that a length of the first SN is less than a length of the radio interface SN, M least significant bits of the radio interface SN are equal to the first SN, and all remaining bits of the radio interface SN are padded with the specified value, wherein M is a bit length of the first SN.

11. The method according to claim 6 or 7, wherein the transmission channel SN of the MBS PDU session comprises a general packet radio service tunnelling protocol user plane GTP-U tunnel SN.

12. The method according to claim 5, wherein the method further comprises:

sending first information, wherein the first information indicates information about a missing data packet for the first multicast broadcast service sent by the radio access network node.

13. The method according to claim 12, wherein before the sending first information, the method further comprises:

in a case that the first multicast broadcast service supports reordering of data packets, performing the step of sending first information; or

in a case that the first multicast broadcast service does not support reordering of data packets, skipping performing the step of sending first information.

14. The method according to claim 12, wherein the sending first information comprises:

sending a data packet previous to or next to the missing data packet, wherein a header of the data packet previous to or next to the missing data packet carries the first information;

or

sending a control PDU, wherein a type of the control PDU indicates the first information.

15. The method according to claim 5, wherein the radio interface SN is a packet data convergence protocol layer SN and/or a radio link control layer SN.

16. An SN synchronization apparatus for multicast broadcast service, applied to a terminal and comprising:

an obtaining module configured to obtain a first radio interface SN of a first multicast broadcast service received in a first cell and a second radio interface SN of the first multicast broadcast service received in a second cell; and

a sorting module configured to sort data packets of the first multicast broadcast service according to the first radio interface SN and the second radio interface SN; wherein

The first radio interface SN and the second radio interface SN are in a same SN set, and the first radio interface SN and the second radio interface SN are at least partially different.

17. The apparatus according to claim 16, wherein the apparatus further comprises a processing module configured to: in a case that the data packets of the first multicast broadcast service are inconsecutive, determine that a data packet in the first multicast

broadcast service is missing; and in a case that the first multicast broadcast service does not support reordering of the data packets, skip starting a reordering timer at a gap when the missing data packet is detected; or in a case that the first multicast broadcast service supports reordering of the data packets, start a reordering timer at a gap when the missing data packet is detected.

18. The apparatus according to claim 17, wherein the apparatus further comprises a receiving module configured to receive first information, wherein the first information indicates information about the missing data packet for the first multicast broadcast service.

19. The apparatus according to claim 18, wherein the receiving module is further configured to: receive a data packet previous to or next to the missing data packet, wherein a header of the data packet previous to or next to the missing data packet carries the first information; or receive a control PDU, wherein the control PDU carries the first information.

20. An SN synchronization apparatus for multicast broadcast service, applied to a radio access network node and comprising:

an allocation module configured to obtain a radio interface SN of a first multicast broadcast service in a first mode, wherein the first mode is the same as a mode in which another radio access network node in a same multicast group obtains a radio interface SN of the first multicast broadcast service.

~~21. The apparatus according to claim 20, wherein the allocation module is further configured to obtain the radio interface SN of the first multicast broadcast service according to a first SN; wherein~~

~~the first SN is a transmission channel SN of an MBS PDU session at an interface between a core network node and the radio access network node, or an SN of a QoS flow in an MBS PDU session.~~

~~22. The apparatus according to claim 21, wherein the MBS PDU session comprises a plurality of QoS flows, wherein~~

~~in a case that the radio access network node maps each QoS flow in the MBS PDU session to a different MRB, the first SN is an SN of the QoS flow;~~

~~or~~

~~in a case that the radio access network node maps all the QoS flows in the MBS PDU session to one MRB, the first SN is a transmission channel SN of the MBS PDU session;~~

~~or~~

~~in a case that the radio access network node maps a first QoS flow in the MBS PDU session to one MRB, the first SN is an SN of the first QoS flow; and in a case that the radio access network node maps remaining QoS flows in the MBS PDU session other than the first QoS flow to one data radio bearer, the first SN is a transmission channel SN of the MBS PDU session;~~

~~or~~

~~in a case that at least part of the QoS flows in the MBS PDU session have no SN, the first SN is a transmission channel SN of the MBS PDU session.~~

~~23. The apparatus according to claim 21 or 22, wherein~~

~~the radio interface SN is equal to the first SN;~~

~~or~~

~~the radio interface SN is equal to a modulus of the sum of the first SN and an offset;~~

~~or~~

~~the radio interface SN is equal to a specified number of bits of the first SN;~~

~~or~~

~~the radio interface SN is equal to a specified number of bits of the first SN and a padding bit, the padding bit being a specified value.~~

~~24. The apparatus according to claim 23, wherein that the radio interface SN is equal to a specified number of bits of the first SN comprises:~~

~~in a case that a length of the first SN is greater than a length of the radio interface SN, the radio interface SN is equal to N least significant bits of the first SN, wherein N is a bit length of the radio interface SN.~~

~~25. The apparatus according to claim 23, wherein that the radio interface SN is equal to a specified number of bits of the first SN and a padding bit, the padding bit being a specified value, comprises:~~

~~in a case that a length of the first SN is less than a length of the radio interface SN, M least significant bits of the radio interface SN are equal to the first SN, and all remaining bits of the radio interface SN are padded with the specified value, wherein M is a bit length of the first SN.~~

~~26. The apparatus according to claim 20, wherein the apparatus further comprises:~~

~~a sending module configured to send first information, wherein the first information indicates information about a missing data packet for the first multicast broadcast service sent by the radio access network node.~~

~~27. The apparatus according to claim 26, wherein the apparatus further comprises:~~

~~an execution module configured to: in a case that the first multicast broadcast service supports reordering of data packets, trigger the sending module to send the first information; or in a case that the first multicast broadcast service does not support reordering of data packets, skip triggering the sending module to send the first information.~~

~~28. The apparatus according to claim 26, wherein the sending module is further configured to: send a data packet previous to or next to the missing data packet, wherein a header of the data packet previous to or next to the missing data packet carries the first information; or send a control PDU, wherein a type of the control PDU indicates the first information.~~

~~29. A terminal, comprising a processor, a memory, and a program stored in the memory and capable of running on the processor, wherein when the program is executed by the processor, the steps of the method according to any one of claims 1 to 4 are implemented.~~

~~30. A network-side device, comprising a processor, a memory, and a program stored in the memory and capable of running on the processor, wherein when the program is executed by the processor, the steps of the method according to any one of claims 5 to 15 are implemented.~~

~~31. A readable storage medium, wherein the readable storage medium stores a program or instructions, and when the program or instructions are executed by a~~

~~processor, the steps of the method according to any one of claims 1 to 15 are implemented.~~

~~32. A computer program product, wherein the computer program product is stored in a non-volatile readable storage medium, and the computer program product is executed by at least one processor to implement the steps of the method according to any one of claims 1 to 15.~~

~~33. A chip, wherein the chip comprises a processor and a communications interface, the communications interface is coupled to the processor, and the processor is configured to run a program or instructions to implement the method according to any one of claims 1 to 15.~~

~~34. A terminal, wherein the terminal is configured to perform the method according to any one of claims 1 to 4.~~

~~35. A network-side device, wherein the network-side device is configured to perform the method according to any one of claims 5 to 15.~~