

WHAT IS CLAIMED IS:

1. A random access message transmission method, performed by a base station and comprising:

sending (601) a second random access message Msg. B corresponding to N terminals after receiving first random access messages Msg. A sent by the N terminals, where N is an integer greater than or equal to 1;

wherein, the Msg. B comprises respective exclusive information of the N terminals; exclusive information comprises a type label of the exclusive information of a terminal; the type label is configured to indicate a length of the exclusive information of the terminal;

wherein the type label corresponds to Type 1 or Type 2, Type 1 is a feedback from the base station to the terminal in response to determining that the base station successfully receives the Msg. A sent by the terminal, Type 2 is a feedback from the base station to the terminal in response to determining that the base station fails to receive the Msg. A sent by the terminal.

2. The method of claim 1, wherein the exclusive information further comprises a subheader and exclusive sub-information; and

the type label is located in the subheader;

~~or,~~

~~the type label is in the exclusive sub-information.~~

3. The method of claim 2, wherein the subheader comprises a random preamble identifier RAP ID; and

the type label occupies M bits in the subheader when the type label is located in the subheader, where $1 \leq M < 6$, and the RAP ID occupies $6-M$ bits in the subheader.

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

exclusive information of a target terminal in the Msg. B is filled with numbers when a length of the exclusive information of the target terminal in the Msg. B is a first length and the first length is different from a second length, and a filling length of the numbers is a difference between the first length and the second length; and

the target terminal is one of the N terminals, and the second length is the longest length in the respective exclusive information corresponding to the N terminals.

5. The method of ~~any one of claims 2 or to 34~~, wherein the exclusive sub-information further comprises at least one of a random access response, a network connection establishment parameter, and a random access conflict resolution response; ~~and the type label is configured to indicate a type of the exclusive information.~~

6. A random access message transmission method, performed by a target terminal and comprising:

sending (701) a first random access message Msg. A to a base station;

receiving (702) a second random access message Msg. B sent by the base station; wherein the Msg. B comprises respective exclusive information of N terminals, the N terminals comprise the target terminal, where N is an integer greater than or equal to 1; the exclusive information comprises a type label of the exclusive information of a terminal; the type label is configured to indicate a length of the exclusive information of the terminal;

extracting (703) a type label in an i-th exclusive information in the Msg. B in response to determining the i-th exclusive information is exclusive information of the target terminal, where $1 \leq i \leq N$, and i is an integer; and

extracting (704) the exclusive information of the target terminal from Msg. B based on a length indicated by a type label in the i-th exclusive information;

wherein the type label corresponds to Type 1 or Type 2, Type 1 is a feedback from the base station to the terminal in response to determining that the base station successfully receives the Msg. A sent by the terminal, Type 2 is a feedback from the base station to the terminal in response to determining that the base station fails to receive the Msg. A sent by the terminal.

7. The method of claim 6, wherein the exclusive information further comprises a subheader and exclusive sub-information; and

the type label is located in the subheader;

~~or,~~

~~the type label is in the exclusive sub-information.~~

8. The method of claim 7, wherein the subheader comprises a random preamble identifier RAP ID; and

the type label occupies M bits in the subheader when the type label is located in the subheader, where $1 \leq M < 6$, and the RAP ID occupies 6-M bits in the subheader.

9. The method of ~~any one of claims 6 to 8~~, wherein,

exclusive information of the target terminal in the Msg. B is filled with numbers when a length of the exclusive information of the target terminal in the Msg. B is a first length and the first length is different from a second length, and a filling length of the numbers is a difference between the first length and the second length; and

the second length is the longest length in the respective exclusive information corresponding to the N terminals.

10. The method of claim 9, further comprising:

skipping information of the second length and parsing (i+1)-th exclusive information in response to determining that i-th exclusive information parsed from the Msg. B is not the exclusive information of the target terminal, where i is not equal to N.

11. The method of ~~any one of claims 6 to 10~~, further comprising:

skipping information on a length indicated by a type label in i-th exclusive information parsed from the Msg. B and parsing (i+1)-th exclusive information in response to determining that the i-th exclusive information is not the exclusive information of the target terminal, where i is not equal to N.

12. The method ~~of any one of claims 7 or 8 to 11~~, wherein the exclusive sub-information further comprises at least one of a random access response, a network connection establishment parameter, and a random access conflict resolution response of a terminal; ~~and~~

~~the type label is configured to indicate a type of the exclusive information.~~

13. A random access message transmission apparatus, applied in a base station and comprising:

an access message sending module, configured to send a second random access

message Msg. B corresponding to N terminals after receiving first random access messages Msg. A sent by the N terminals, where N is an integer greater than or equal to 1;

wherein, the Msg. B comprises respective exclusive information of the N terminals; exclusive information comprises a type label of the exclusive information of a terminal; the type label is configured to indicate a length of the exclusive information of the terminal;

wherein the type label corresponds to Type 1 or Type 2, Type 1 is a feedback from the base station to the terminal in response to determining that the base station successfully receives the Msg. A sent by the terminal, Type 2 is a feedback from the base station to the terminal in response to determining that the base station fails to receive the Msg. A sent by the terminal.

14. The apparatus of claim 13, wherein the exclusive information further comprises a subheader and exclusive sub-information; and

the type label is located in the subheader.

15. The apparatus of claim 14, wherein the subheader comprises a random preamble identifier RAP ID; and

the type label occupies M bits in the subheader when the type label is located in the subheader, where $1 \leq M < 6$, and the RAP ID occupies $6 - M$ bits in the subheader.

16. The apparatus of claim 13, wherein,

exclusive information of a target terminal in the Msg. B is filled with numbers when a length of the exclusive information of the target terminal in the Msg. B is a first length and the first length is different from a second length, and a filling length of the numbers is a difference between the first length and the second length; and

the target terminal is one of the N terminals, and the second length is the longest length in the respective exclusive information corresponding to the N terminals.

17. The apparatus of claim 14 or 15, wherein the exclusive sub-information further comprises at least one of a random access response, a network connection establishment parameter, and a random access conflict resolution response.

18. A random access message transmission apparatus, applied in a target terminal and comprising:

a first message sending module, configured to send a first random access message Msg. A to a base station;

a second message receiving module, configured to receive a second random access message Msg. B sent by the base station; wherein the Msg. B comprises respective exclusive information of N terminals, the N terminals comprise the target terminal, where N is an integer greater than or equal to 1; the exclusive information comprises a type label of the exclusive information of a terminal; the type label is configured to indicate a length of the exclusive information of the terminal;

a type label extracting module, configured to extract a type label in an i-th exclusive information in the Msg. B in response to determining the i-th exclusive information is exclusive information of the target terminal, where $1 \leq i \leq N$, and i is an integer; and

a random response extracting module, configured to extract the exclusive information of the target terminal from Msg. B based on a length indicated by a type label in the i-th exclusive information;

wherein the type label corresponds to Type 1 or Type 2, Type 1 is a feedback from the base station to the terminal in response to determining that the base station successfully receives the Msg. A sent by the terminal, Type 2 is a feedback from the base station to the terminal in response to determining that the base station fails to receive the Msg. A sent by the terminal.

19. The apparatus of claim 18, wherein the exclusive information further comprises a subheader and exclusive sub-information; and

the type label is located in the subheader.

20. The apparatus of claim 19, wherein the subheader includes a random preamble identifier RAP ID; and

the type label occupies M bits in the subheader when the type label is located in the subheader, where $1 \leq M < 6$, and the RAP ID occupies 6-M bits in the subheader.

21. The apparatus of claim 18, wherein,

exclusive information of the target terminal in the Msg. B is filled with numbers when a length of the exclusive information of the target terminal in the Msg. B is a first length and the first length is different from a second length, and a filling length of the numbers is a difference between the first length and the second length; and

the second length is the longest length in the respective exclusive information corresponding to the N terminals.

22. The apparatus of claim 21, further comprising:

a first skipping module, configured to skip information of the second length and parsing (i+1)-th exclusive information in response to determining that i-th exclusive information parsed from the Msg. B is not the exclusive information of the target terminal, where i is not equal to N.

23. The apparatus of claim 18, further comprising:

a second skipping module, configured to skip information on a length indicated by a type label in i-th exclusive information parsed from the Msg. B and parsing (i+1)-th exclusive information in response to determining that the i-th exclusive information is not the exclusive information of the target terminal, where i is not equal to N.

24. The apparatus of claim 19 or 20, wherein the exclusive sub-information further comprises at least one of a random access response, a network connection establishment parameter, and a random access conflict resolution response of a terminal.

~~13-~~25. A random access message transmission apparatus, applied in a base station and comprising:

a processor,

a memory for storing executable instructions for the processor;

wherein the processor is configured to:

send a second random access message Msg. B corresponding to N terminals after receiving first random access messages Msg. A sent by the N terminals, where N is an integer greater than or equal to 1;

wherein, the Msg. B comprises respective exclusive information of the N terminals; exclusive information comprises a type label of the exclusive information of a terminal;

the type label is configured to indicate a length of the exclusive information of the terminal;

wherein the type label corresponds to Type 1 or Type 2, Type 1 is a feedback from the base station to the terminal in response to determining that the base station successfully receives the Msg. A sent by the terminal, Type 2 is a feedback from the base station to the terminal in response to determining that the base station fails to receive the Msg. A sent by the terminal.

~~14. The apparatus of claim 13, wherein the exclusive information further comprises a subheader and exclusive sub-information; and~~

~~the type label is located in the subheader;~~

~~or,~~

~~the type label is in the exclusive sub-information.~~

~~15. The apparatus of claim 14, wherein the subheader comprises a random preamble identifier RAP ID; and~~

~~the type label occupies M bits in the subheader when the type label is located in the subheader, where $1 \leq M < 6$, and the RAP ID occupies $6 - M$ bits in the subheader.~~

~~16. The apparatus of any one of claims 13 to 15, wherein,~~

~~exclusive information of a target terminal in the Msg. B is filled with numbers when a length of the exclusive information of the target terminal in the Msg. B is a first length and the first length is different from a second length, and a filling length of the numbers is a difference between the first length and the second length; and~~

~~the target terminal is one of the N terminals, and the second length is the longest length in the respective exclusive information corresponding to the N terminals.~~

~~17. The apparatus of any one of claims 14 to 16, wherein the exclusive sub-information further comprises at least one of a random access response, a network connection establishment parameter, and a random access conflict resolution response; and~~

~~the type label is configured to indicate a type of the exclusive information.~~

~~18~~26. A random access message transmission apparatus, applied in a target terminal

and comprising:

a processor,

a memory for storing executable instructions for the processor;

wherein the processor is configured to:

send a first random access message Msg. A to a base station;

receive a second random access message Msg. B sent by the base station; wherein the Msg. B comprises respective exclusive information of N terminals, the N terminals comprise the target terminal, where N is an integer greater than or equal to 1; the exclusive information comprises a type label of the exclusive information of a terminal; the type label is configured to indicate a length of the exclusive information of the terminal;

extract a type label in an i-th exclusive information in the Msg. B in response to determining the i-th exclusive information is exclusive information of the target terminal, where $1 \leq i \leq N$, and i is an integer; and

extract the exclusive information of the target terminal from Msg. B based on a length indicated by a type label in the i-th exclusive information;

wherein the type label corresponds to Type 1 or Type 2, Type 1 is a feedback from the base station to the terminal in response to determining that the base station successfully receives the Msg. A sent by the terminal, Type 2 is a feedback from the base station to the terminal in response to determining that the base station fails to receive the Msg. A sent by the terminal.

~~19. The apparatus of claim 18, wherein the exclusive information further comprises a subheader and exclusive sub-information; and~~

~~the type label is located in the subheader;~~

~~or,~~

~~the type label is in the exclusive sub-information.~~

~~20. The apparatus of claim 19, wherein the subheader includes a random preamble identifier RAP ID; and~~

~~the type label occupies M bits in the subheader when the type label is located in the subheader, where $1 \leq M < 6$, and the RAP ID occupies $6 - M$ bits in the subheader.~~