

CLAIMS

1. A random access method, applied to a terminal device and comprising:

transmitting a first message to a network side device;

receiving a response message that is transmitted by the network side device and that comprises target configuration information, wherein, there is an association relationship between at least some configuration information in the target configuration information and an association parameter, and the association parameter is a parameter that can be obtained by the terminal device before the terminal device receives the response message; and

obtaining, based on the association relationship, configuration information that is associated with a target association parameter of the terminal device from the target configuration information;

wherein the first message is an Msg1 in a 2-step random access procedure, and the response message is an Msg2 in the 2-step random access procedure;

the target configuration information comprises uplink resource allocation information used to indicate a transmission resource for a feedback message of the Msg2;

wherein after receiving the response message that is transmitted by the network side device and that comprises target configuration information, the method further comprises:

when successfully receiving the Msg2, the terminal device transmits the feedback message of the Msg2 to the network side device.

2. The method according to claim 1, wherein ~~the first message is Msg1 in a 2-step random access procedure, and the response message is Msg2 in the 2-step random access procedure;~~

~~wherein~~ the target configuration information further comprises at least one of the following: a random access preamble identifier, a timing advance, ~~uplink resource allocation information used to indicate a transmission resource for a feedback message of Msg2,~~ a terminal device identity, a contention resolution identity, and wireless connection configuration information.

3. The method according to claim 2, wherein the terminal device determines that a random access preamble identifier comprised in Msg2 is the identifier of the random access preamble transmitted by the terminal device in Msg1, and behavior of the terminal device comprises at least one of the following:

using a contention resolution identity associated with the preamble identifier for contention resolution; or

using the uplink resource allocation information associated with the preamble identifier to transmit the feedback information of Msg2; or

using a terminal device identity associated with the preamble identifier as an identifier of the terminal device; or

using the wireless connection configuration information associated with the preamble identifier as wireless connection configuration information of the terminal device.

4. The method according to claim 2 or 3, wherein after the terminal device considers the contention resolution is successful based on the contention resolution identity, the behavior of the terminal device comprises at least one of the following:

using uplink resource allocation information associated with the contention resolution identity to transmit the feedback information of Msg2; or

using a terminal device identity associated with the contention resolution identity as an identifier of UE in a connected state; or

using the wireless connection configuration information associated with the contention resolution identity as wireless connection configuration information of the terminal device.

5. The method according to claim 2, wherein the association parameter comprises at least one of a random access preamble identifier and a contention resolution identity; or

the uplink resource allocation information comprises at least one of the following:

uplink resource allocation information of a data channel; and

uplink resource allocation information of a control channel.

~~6. The method according to claim 2, wherein after receiving Msg2 that is transmitted by the network side device and that comprises target configuration information, the method further comprises:~~

~~transmitting a feedback message of Msg2 to the network side device;~~

~~wherein the transmitting a feedback message of Msg2 to the network side device comprises:~~

~~when the terminal device considers that contention resolution is successful, it transmits the feedback message of Msg2 to the network side device; or~~

~~when successfully receiving the Msg2, the terminal device transmits the feedback message of Msg2 to the network side device.~~

6. The method according to claim 1, wherein the feedback message of the Msg2 comprises: a Hybrid Automatic Repeat Request (HARQ) feedback for the Msg2.

7. The method according to claim ~~6~~1, wherein the transmitting a feedback message of Msg2 to the network side device comprises:

transmitting the feedback message of Msg2 to the network side device in a HARQ manner.

8. The method according to claim ~~6~~1, wherein after transmitting a feedback message of Msg2 to the network side device, the method further comprises:

when receiving ~~the~~ first indication information transmitted by the network side device, ~~the~~ the terminal device retransmits the feedback message of Msg2 to the network side device, wherein the first indication information is used to instruct the terminal device to retransmit the feedback message.

9. A random access method, applied to a network side device and comprising:
receiving a first message transmitted by a terminal device; and
transmitting, to the terminal device, a response message that comprises target configuration information; wherein

there is an association relationship between at least some configuration information in the target configuration information and an association parameter, and the association parameter is a parameter that can be obtained by the terminal device before the terminal device receives the response message;

wherein the first message is an Msg1 in a 2-step random access procedure, and the response message is an Msg2 in the 2-step random access procedure;

the target configuration information comprises uplink resource allocation information used to indicate a transmission resource for a feedback message of the Msg2;

wherein after the transmitting, to the terminal device, the response message that comprises target configuration information, the method further comprises:

receiving the feedback message that is of the Msg2 and that is transmitted by the terminal device after the terminal device successfully receives the Msg2.

10. The method according to claim 9, wherein ~~the first message is Msg1 in a 2-step random access procedure, and the response message is Msg2 in the 2-step random access procedure;~~

~~wherein~~ the target configuration information further comprises at least one of the following: a random access preamble identifier, a timing advance, ~~uplink resource allocation information used to indicate a transmission resource for a feedback message of Msg2,~~ a terminal device identity, a contention resolution identity, and wireless connection configuration information.

11. The method according to claim 10, wherein the association parameter comprises at least one of a random access preamble identifier and a contention resolution identity; or

the uplink resource allocation information comprises at least one of the following:

uplink resource allocation information of a data channel; and

uplink resource allocation information of a control channel.

~~12. The method according to claim 10, wherein after the transmitting, to the terminal device, a response message that comprises target configuration information, the method further comprises:~~

~~receiving a feedback message that is of Msg2 and that is transmitted by the terminal device.~~

12. The method according to claim 9, wherein the feedback message of the Msg2 comprises:
a Hybrid Automatic Repeat Request (HARQ) feedback for the Msg2.

13. A terminal device, comprising:

a first transmission module, configured to transmit a first message to a network side device;

a first receiving module, configured to receive a response message that is transmitted by the network side device and that comprises target configuration information, wherein, there is an association relationship between at least some configuration information in the target configuration information and an association parameter, and the association parameter is a parameter that can be obtained by the terminal device before the terminal device receives the response message; and

an obtaining module, configured to obtain, based on the association relationship, configuration information that is associated with a target association parameter of the terminal device from the target configuration information;

wherein the first message is an Msg1 in a 2-step random access procedure, and the response message is an Msg2 in the 2-step random access procedure;

the target configuration information comprises uplink resource allocation information used to indicate a transmission resource for a feedback message of the Msg2;

wherein the terminal device further comprises:

a second transmission module, configured to: after the Msg2 that is transmitted by the network side device and that comprises the target configuration information is received successfully by the terminal device, transmit the feedback message of Msg2 to the network side device.

14. The terminal device according to claim 13, wherein ~~the first message is Msg1 in a 2-step random access procedure, and the response message is Msg2 in the 2-step random access procedure;~~

~~wherein~~ the target configuration information further comprises at least one of the following: a random access preamble identifier, a timing advance, ~~uplink resource allocation information used to indicate a transmission resource for a feedback message of Msg2,~~ a terminal device identity, a contention resolution identity, and wireless connection configuration information.

15. The terminal device according to claim 14, wherein the terminal device determines that a random access preamble identifier comprised in Msg2 is a random access preamble identifier transmitted by the terminal device in Msg1, and behavior of the terminal device comprises at least one of the following:

using a contention resolution identity associated with the preamble identifier for contention resolution; or

using uplink resource allocation information associated with the preamble identifier to transmit feedback information of Msg2; or

using a terminal device identity associated with the preamble identifier as an identifier of the terminal device; or

using wireless connection configuration information associated with the preamble identifier as wireless connection configuration information of the terminal device.

16. The terminal device according to claim 14 or 15, wherein after the terminal device considers the contention resolution is successful based on the contention resolution identity, the behavior of the terminal device comprises at least one of the following:

using uplink resource allocation information associated with the contention resolution identity to transmit the feedback information of Msg2; or

using a terminal device identity associated with the contention resolution identity as an identifier of UE in a connected state; or

using wireless connection configuration information associated with the contention resolution identity as wireless connection configuration information of the terminal device.

~~17. The terminal device according to claim 14, wherein the terminal device further comprises:~~

~~a second transmission module, configured to: after Msg2 that is transmitted by the network side device and that comprises the target configuration information is received, transmit a feedback message of Msg2 to the network side device.~~

17. The terminal device according to claim 13, wherein the feedback message of the Msg2 comprises: a Hybrid Automatic Repeat Request (HARQ) feedback for the Msg2.

18. A network side device, comprising:

a first receiving module, configured to receive a first message transmitted by a terminal device; and

a first transmission module, configured to transmit, to the terminal device, a response message that comprises target configuration information; wherein

there is an association relationship between at least some configuration information in the target configuration information and an association parameter, and the association parameter is a parameter that can be obtained by the terminal device before the terminal device receives the response message;

wherein the first message is an Msg1 in a 2-step random access procedure, and the response message is an Msg2 in the 2-step random access procedure;

the target configuration information comprises uplink resource allocation information used to indicate a transmission resource for a feedback message of the Msg2;

the network side device further comprises:

a second receiving module, configured to: after the response message that comprises the target configuration information is sent to the terminal device, receive the feedback message that is of Msg2 and that is transmitted by the terminal device after the terminal device successfully receives the Msg2.

19. The network side device according to claim 18, wherein ~~the first message is Msg1 in a 2-step random access procedure, and the response message is Msg2 in the 2-step random access procedure;~~

~~wherein~~ the target configuration information further comprises at least one of the following: a random access preamble identifier, a timing advance, ~~uplink resource allocation information used to indicate a transmission resource for a feedback message of Msg2,~~ a terminal device identity, a contention resolution identity, and wireless connection configuration information.

~~20. The network side device according to claim 19, wherein the network side device further comprises:~~

~~a second receiving module, configured to: after the response message that comprises the target configuration information is sent to the terminal device, receive a feedback message that is of Msg2 and that is transmitted by the terminal device.~~

20. The network side device according to claim 18, wherein the feedback message of the Msg2 comprises: a Hybrid Automatic Repeat Request (HARQ) feedback for the Msg2.