

CLAIMS

1. A communication method, performed by a terminal device or a chip for the terminal device, comprising:

determining connection failure information; and

5 sending the connection failure information and an identifier of a first cell to a first network device by using a radio resource control RRC message, wherein the first cell is where a reconfiguration message or a handover command message received by the terminal device comes, a handover failure occurs in a procedure in which the terminal device attempts to be handed over from the first cell of a source network device to a second cell of a target network device, the first
10 cell and the second cell use different radio access technologies, and a third cell of the first network device to which the terminal device sends the RRC message and the second cell use a same radio access technology; or, the first cell is where a connection failure occurs and the terminal device detects a radio link failure, RLF, in the first cell of the source network device and the third cell of the first network device and the first cell use different radio access technologies; and wherein
15 the connection failure information is in a form of a container in the RRC message and the identifier of the first cell is outside the container.

2. The method according to claim 1, further comprising:

accessing, by the terminal device, the third cell of the first network device before sending the RRC message.

20 3. The method according to claim 1 or 2, wherein a radio access technology used by the third cell of the first network device is new radio NR, and a radio access technology used by the first cell is evolved universal terrestrial radio access E-UTRA.

4. The method according to any one of claims 1 to 3, wherein one of the following is carried in the RRC message and outside the container:

25 a tracking area code, TAC, of the first cell,
type information of the first cell, or,

the TAC of the first cell and the type information of the first cell;

wherein the type information indicates that the first cell is a long term evolution, LTE, cell, an eLTE cell, or, a new radio, NR, cell.

5. The method according to any one of claims 1 to 4, wherein the identifier of the first cell is a cell global identifier.

6. The method according to any one of claims 1 to 5, wherein the connection failure information indicates the handover failure occurs in the procedure in which the terminal device attempts to be handed over from the first cell of the source network device to the second cell of the target network device, or, the RLF occurs in the first cell of the source network device.

7. A communication method, performed by a first network device or a chip for the first network device, comprising:

receiving a radio resource control RRC message from a terminal device, wherein the RRC message comprises connection failure information and an identifier of a first cell, wherein the first cell is where a reconfiguration message or a handover command message received by the terminal device comes, a handover failure occurs in a procedure in which the terminal device attempts to be handed over from the first cell of a source network device to a second cell of a target network device, the first cell and the second cell use different radio access technologies, and a third cell of the first network device to which the terminal device sends the RRC message and the second cell use a same radio access technology; or, the first cell is where a connection failure occurs and the terminal device detects a radio link failure, RLF, in the first cell of the source network device and the third cell of the first network device and the first cell use different radio access technologies; and

determining the identifier of the first cell based on the RRC message, wherein the connection failure information is in a form of a container in the RRC message and the identifier of the first cell is outside the container.

8. The method according to claim 7, further comprising:

sending, to a second network device through an interface between the first network device and the second network device, the connection failure information and information indicating a radio access technology of an RRC format that is used by the connection failure information, wherein the second network device is the source network device.

9. The method according to claim 7, further comprising:

sending, to a second network device through a core network device, the connection failure information and information indicating a radio access technology of an RRC format that is used by the connection failure information, wherein the second network device is the source network

device.

10. The method according to any one of claims 7 to 9, wherein a radio access technology used by the third cell of the first network device is new radio NR, and a radio access technology used by the first cell is evolved universal terrestrial radio access E-UTRA.

5 11. The method according to any one of claims 7 to 10, wherein one of the following is carried in the RRC message and outside the container:

 a tracking area code, TAC, of the first cell,

 type information of the first cell, or,

 the TAC of the first cell and the type information of the first cell;

10 wherein the type information indicates that the first cell is a long term evolution, LTE, cell, an eLTE cell, or, a new radio, NR, cell.

12. The method according to any one of claims 7 to 11, wherein the identifier of the first cell is a cell global identifier.

15 13. The method according to any one of claims 7 to 12, wherein the connection failure information indicates the handover failure occurs in the procedure in which the terminal device attempts to be handed over from the first cell of the source network device to the second cell of the target network device, or, the RLF occurs in the first cell of the source network device.

14. A communication method, performed by a second network device or a chip for the second network device, comprising:

20 receiving, from a first network device through an interface between the second network device and the first network device or by using a core network device, connection failure information and information indicating a radio access technology of an RRC format that is used by the connection failure information; and

 determining, based on the information indicating the radio access technology of the RRC
25 format that is used by the connection failure information, the radio access technology of the RRC format that is used by the connection failure information.

15. The method according to claim 14, wherein the first network device and the second network device use different radio access technologies.

30 16. An apparatus, wherein the apparatus is a terminal device or a chip or a circuit disposed in the terminal device, and the apparatus comprises a unit or a module configured to perform the method according to any one of claims 1 to 6.

17. An apparatus, wherein the apparatus is a terminal device or a chip or a circuit disposed in the terminal device, and comprises a processor and a memory, wherein the memory is configured to store a computer program, the computer program comprises program instructions, and when the processor runs the program instructions, the apparatus is enabled to perform the method according to any one of claims 1 to 6.

18. An apparatus, wherein the apparatus is a network device or a chip or a circuit disposed in the network device, and the apparatus comprises a unit or a module configured to perform the method according to any one of claims 7 to 15.

19. An apparatus, wherein the apparatus is a network device or a chip or a circuit disposed in the network device, and comprises a processor and a memory, wherein the memory is configured to store a computer program, the computer program comprises program instructions, and when the processor runs the program instructions, the apparatus is enabled to perform the method according to any one of claims 7 to 15.

20. A communications system, comprising the apparatus according to claim 17 or 16 and the apparatus according to claim 19 or 18.

21. A readable storage medium or a program product, wherein the readable storage medium or the program product stores program instructions, and when the program instructions are run, the method according to any one of claims 1 to 6, any one of claims 7 to 13, or claim 14 or 15 is performed.