

CLAIMS

1. A communication method, wherein the method comprises:

receiving, by a terminal device, a first message from an access network device, wherein the first message indicates the terminal device to perform handover to a target cell or to perform redirection to a target frequency;

determining, by the terminal device, that emergency services fallback needs to be performed, or the first message comprises second indication information, wherein the second indication information indicates voice fallback; and

if the handover to the target cell fails or the redirection to the target frequency fails, and the terminal device has an ongoing emergency service, searching, by the terminal device, for an acceptable cell or a suitable cell.

2. The method according to claim 1, wherein when the terminal device determines that the emergency services fallback needs to be performed, the first message comprises no second indication information, wherein the second indication information indicates the voice fallback.

3. The method according to claim 1 or 2, wherein the first message is one of the following: a mobility from new radio NR command message, a mobility from evolved universal terrestrial radio access E-UTRA command message, a radio resource control RRC release message, or a radio resource control RRC reconfiguration message.

4. The method according to any one of claims 1 to 3, wherein the method further comprises: initiating, by the terminal device, the emergency services fallback, or initiating, by the terminal device, the emergency services fallback before receiving the first message.

5. The method according to any one of claims 1 to 4, wherein the method further comprises: receiving, by an access stratum of the terminal device, third indication information from an application layer and/or a non-access stratum of the terminal device, wherein the third indication information indicates that the ongoing emergency service exists.

6. The method according to any one of claims 1 to 5, wherein the method further comprises: querying, by the terminal device, whether the terminal device has the ongoing emergency service; and

if finding the ongoing emergency service, determining, by the terminal device, that the ongoing emergency service exists.

7. The method according to any one of claims 1 to 6, wherein the method further comprises: if the acceptable cell or the suitable cell that is found is a cell supporting an emergency

service, entering, by the terminal device, a radio resource control idle RRC_IDLE state; and/or
if the acceptable cell or the suitable cell that is found is a cell supporting an emergency service, performing, by the terminal device, the emergency service in the acceptable cell or the suitable cell.

8. The method according to any one of claims 1 to 6, wherein the method further comprises:
if finding no acceptable cell or no suitable cell, triggering, by the terminal device, a radio resource control RRC re-establishment procedure;

if finding no acceptable cell or no suitable cell, performing, by the terminal device, RRC re-establishment by using configuration information of a source cell;

if no acceptable cell or no suitable cell is found, sending, by the access stratum of the terminal device, fourth indication information to the application layer and/or the non-access stratum of the terminal device, wherein the fourth indication information indicates that no acceptable cell or no suitable cell is found; or

if finding no acceptable cell or no suitable cell, searching, by the terminal device, for a cell of another standard.

9. The method according to any one of claims 1 to 8, wherein the acceptable cell or the suitable cell is an E-UTRA cell.

10. A communication method, wherein the method comprises:
receiving, by an access network device, an emergency fallback request; and
sending, by the access network device, a first message to a terminal device in response to the emergency fallback request, wherein

the first message comprises second indication information; or

the first message comprises no second indication information, wherein

the second indication information indicates voice fallback.

11. The method according to claim 10, wherein the first message is one of the following: a mobility from new radio NR command message, a mobility from evolved universal terrestrial radio access E-UTRA command message, a radio resource control RRC release message, or a radio resource control RRC reconfiguration message.

12. A communication apparatus, wherein the apparatus comprises:

a receiving module, configured to receive a first message from an access network device, wherein the first message indicates a terminal device to perform handover to a target cell or to perform redirection to a target frequency; and

a processing module, configured to determine that emergency services fallback needs to

be performed, or the first message comprises second indication information, wherein the second indication information indicates voice fallback, wherein

the processing module is further configured to: if the handover to the target cell fails or the redirection to the target frequency fails, and the terminal device has an ongoing emergency service, search for an acceptable cell or a suitable cell.

13. The apparatus according to claim 12, wherein when the terminal device determines that the emergency services fallback needs to be performed, the first message comprises no second indication information, wherein the second indication information indicates the voice fallback.

14. The apparatus according to claim 12 or 13, wherein the first message is one of the following: a mobility from new radio NR command message, a mobility from evolved universal terrestrial radio access E-UTRA command message, a radio resource control RRC release message, or a radio resource control RRC reconfiguration message.

15. The apparatus according to any one of claims 12 to 14, wherein
the processing module is further configured to: initiate the emergency services fallback, or initiate the emergency services fallback before the first message is received.

16. The apparatus according to any one of claims 12 to 15, wherein
the processing module is further configured to receive third indication information from an application layer and/or a non-access stratum of the terminal device through an access stratum of the terminal device, wherein the third indication information indicates that the ongoing emergency service exists.

17. The apparatus according to any one of claims 12 to 16, wherein
the processing module is further configured to: query whether the terminal device has the ongoing emergency service; and if finding the ongoing emergency service, determine that the ongoing emergency service exists.

18. The apparatus according to any one of claims 12 to 17, wherein
the processing module is further configured to: if the acceptable cell or the suitable cell that is found is a cell supporting an emergency service, enter a radio resource control idle RRC_IDLE state; and/or

the processing module is further configured to: if the acceptable cell or the suitable cell that is found is a cell supporting an emergency service, perform the emergency service in the acceptable cell or the suitable cell.

19. The apparatus according to any one of claims 12 to 18, wherein the processing module

is further configured to:

- if finding no acceptable cell or no suitable cell, trigger a radio resource control RRC re-establishment procedure;

- if finding no acceptable cell or no suitable cell, perform RRC re-establishment by using configuration information of a source cell;

- if finding no acceptable cell or no suitable cell, send fourth indication information to the application layer and/or the non-access stratum of the terminal device through the access stratum of the terminal device, wherein the fourth indication information indicates that no acceptable cell or no suitable cell is found; or

- if finding no acceptable cell or no suitable cell, search for a cell of another standard.

20. The apparatus according to any one of claims 12 to 19, wherein

the processing module is further configured to send fifth indication information to the application layer and/or the non-access stratum of the terminal device through the access stratum of the terminal device, wherein the fifth indication information indicates that the handover to the target cell fails or the redirection to the target frequency fails.

21. A communication apparatus, wherein the apparatus comprises:

- a receiving module, configured to receive an emergency fallback request; and

- a sending module, configured to send a first message to a terminal device in response to the emergency fallback request, wherein

- the first message comprises second indication information; or

- the first message comprises no second indication information, wherein

- the second indication information indicates voice fallback.

22. The apparatus according to claim 21, wherein the first message is one of the following:

a mobility from new radio NR command message, a mobility from evolved universal terrestrial radio access E-UTRA command message, a radio resource control RRC release message, or a radio resource control RRC reconfiguration message.

23. A communication apparatus, comprising a processor and a memory, wherein the memory is configured to store a computer program, and the processor runs the computer program, to enable the apparatus to perform the method according to any one of claims 1 to 9.

24. A communication apparatus, comprising a processor and a memory, wherein the memory is configured to store a computer program, and the processor runs the computer program, to enable the apparatus to perform the method according to claim 10 or 11.

25. A computer-readable storage medium, configured to store a computer program,

wherein when the computer program is run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 9.

26. A computer-readable storage medium, configured to store a computer program, wherein when the computer program is run on a computer, the computer is enabled to perform the method according to claim 10 or 11.

27. A computer program product, wherein the computer program product comprises a computer program, and when the computer program is run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 9 or claim 10 or 11.