

CLAIMS

- 5 1. A paging failure processing method, comprising:
 under a condition that downlink data for a terminal device is needed to be
transmitted, determining, by an access network device, that paging initiated to the
terminal device by the access network device failed; and
 transmitting, by the access network device, first indication information to a
10 Core Network (CN) device, wherein the first indication information indicates that
paging initiated to the terminal device by the access network device failed.
2. The method of claim 1, wherein the first indication information is carried in a
connection release request message, and the connection release request message is
15 used to request for releasing connection in relation to the terminal device between the
CN device and the access network device.
3. The method of claim 1 or 2, before determining, by the access network device,
paging initiated to the terminal device by the access network device failed, further
20 comprising:
 transmitting, by the access network device, the paging message to the terminal
device.
4. The method of claim 3, wherein transmitting, by the access network device, the
25 paging message to the terminal device comprises:
 under a condition that the access network device receives the downlink data
for the terminal device from the CN device, transmitting, by the access network
device, the paging message to the terminal device.
- 30 5. The method of claim 4, after determining, by the access network device, paging
initiated to the terminal device by the access network device failed, further comprising:
 transmitting, by the access network device, the downlink data for the terminal
device received by the access network device back to the CN device.

6. The method of claim 3, wherein transmitting, by the access network device, the paging message to the terminal device comprises:

receiving, by the access network device, second indication information transmitted by the CN device, wherein the second indication information indicates

5 that there is downlink data for the terminal device to be transmitted; and

transmitting, by the access network device, the paging message to the terminal device according to the second indication information.

7. The method of claim 6, after determining, by the access network device, paging initiated to the terminal device by the access network device failed, further comprising:

transmitting, by the access network device, third indication information to the CN device, wherein the third indication information indicates that the terminal device is undeliverable or the downlink data for the terminal device to be transmitted cannot be transmitted.

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8. An access network device, comprising:

a first determination unit, configured to, under a condition that downlink data for a terminal device is needed to be transmitted, determine that paging initiated to the terminal device by the access network device failed; and

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a first transmitting unit, configured to transmit first indication information to a Core Network (CN) device, wherein the first indication information indicates that paging initiated to the terminal device by the access network device failed.

9. The access network device of claim 8, wherein the first indication information is carried in a connection release request message, and the connection release request message is used to request for releasing connection in relation to the terminal device between the CN device and the access network device.

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10. The access network device of claim 8 or 9, further comprising:

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a second transmitting unit, configured to transmit the paging message to the terminal device.

11. The access network device of claim 10, wherein the second transmitting unit is

specifically configured to:

under a condition that the access network device receives the downlink data for the terminal device from the CN device, transmit the paging message to the terminal device.

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12. The access network device of claim 11, further comprising:

a third transmitting unit, configured to transmit the downlink data for the terminal device received by the access network device back to the CN device.

10 13. The access network device of claim 10, further comprising:

a receiving unit, configured to receive second indication information transmitted by the CN device, wherein the second indication information indicates that there is downlink data for the terminal device to be transmitted, and

wherein the second transmitting unit is specifically configured to:

15 transmit the paging message to the terminal device according to the second indication information.

14. The access network device of claim 13, further comprising:

20 a fourth transmitting unit, configured to transmit third indication information to the CN device, wherein the third indication information indicates that the terminal device is undeliverable or the downlink data for the terminal device to be transmitted cannot be transmitted.

15. A Core Network (CN) device, comprising:

25 a first receiving unit, configured to receive first indication information transmitted by an access network device, wherein the first indication information indicates that paging initiated to a terminal device by the access network device failed; and

30 a paging unit, configured to initiate paging to the terminal device according to the first indication information.

16. The CN device of claim 15, wherein the first indication information is carried in a connection release request message, the connection release request message is used to

request for releasing connection in relation to the terminal device between the CN device and the access network device, and the CN device further comprises:

the release unit, configured to release connection of the terminal device between the CN device and the access network device according to the connection
5 release request message.

17. The CN device of claim 15 or 16, further comprising:

a first transmitting unit, configured to transmit downlink data for the terminal device to the access network device.

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18. The CN device of claim 17, further comprising:

a second receiving unit, configured to receive the downlink data for the terminal device transmitted back by the access network device.

15 19. The CN device of claim 15 or 16, further comprising:

a second transmitting unit, configured to transmit second indication information to the access network device, wherein the second indication information indicates that there is downlink data for the terminal device to be transmitted.

20 20. The CN device of claim 19, further comprising:

a third receiving unit, configured to receive third indication information transmitted by the access network device, wherein the third indication information indicates that the terminal device is undeliverable or the downlink data for the terminal device to be transmitted cannot be transmitted.

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