

CLAIMS

1. A data transmission method, performed by a core network device, wherein the method comprises:

receiving first information sent by an access network device, wherein the first information is related to configuration status of small data transmission of a terminal device; or

sending second information to the access network device, wherein the second information is related to core network based mobile terminated communication.

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

determining, based on the first information, whether to transmit buffered downlink information, wherein the downlink information comprises signaling and/or data buffered for performing the core network based mobile terminated communication.

3. The method according to claim 2, wherein the first information comprises at least one of following:

first indication information indicating whether the terminal device is configured with small data transmission;

a first information type corresponding to small data transmission configured for the terminal device;

an extended discontinuous reception cycle parameter configured for the terminal device;

threshold information corresponding to small data transmission configured for the terminal device;

a first protocol data unit session identifier corresponding to small data transmission configured for the terminal device; or

a first quality of service flow identifier corresponding to small data transmission configured for the terminal device.

4. The method according to claim 3, wherein determining, based on the first information, whether to transmit the buffered downlink information comprises at least one of:

in response to determining, based on the first indication information, that the terminal

device is configured with the small data transmission, transmitting the downlink information corresponding to the small data transmission;

in a case that information in the downlink information belongs to the first information type, transmitting the downlink information corresponding to the small data transmission;

in a case that an extended discontinuous reception cycle represented by the extended discontinuous reception cycle parameter is greater than or equal to a preset cycle, transmitting the downlink information corresponding to the small data transmission;

in a case that a data size of information of the first information type in the downlink information is less than or equal to a data threshold represented by the threshold information, transmitting the downlink information corresponding to the small data transmission; or

in a case that a second protocol data unit session identifier corresponding to information of the first information type in the downlink information is consistent with the first protocol data unit session identifier, or a second quality of service flow identifier corresponding to the information of the first information type in the downlink information is consistent with the first quality of service flow identifier, transmitting the downlink information corresponding to the small data transmission.

5. The method according to any one of claims 1 to 4, wherein receiving the first information sent by the access network device comprises:

receiving a first message sent by the access network device, wherein the first message carries the first information,

optionally, wherein receiving the first message sent by the access network device comprises at least one of:

receiving a control plane message sent by the access network device;

receiving a user plane message sent by the access network device; or

receiving an inactive state transition report message of the terminal device sent by the access network device; optionally, the inactive state transition report message is sent after the access network device switches the terminal device to an inactive state.

6. The method according to any one of claims 2 to 5, further comprising:

in response to determining to transmit the buffered downlink information, transmitting, to the access network device based on the first information, the downlink information corresponding to the small data transmission.

7. The method according to claim 1, wherein the second information comprises at least one of following:

second indication information indicating a buffer start;

a second information type corresponding to the buffered downlink information;

time information corresponding to the buffered downlink information;

a data size corresponding to the buffered downlink information;

a third protocol data unit session identifier corresponding to the buffered downlink information; or

a third quality of service flow identifier corresponding to the buffered downlink information,

optionally, wherein sending the second information to the access network device comprises at least one of:

sending a second message to the access network device, wherein the second message carries the second information;

sending a control plane message to the access network device, wherein the control plane message carries the second information; or

sending a user plane message to the access network device, wherein the user plane message carries the second information.

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

receiving third information sent by the access network device; and

determining, based on the third information, whether to transmit the downlink information corresponding to the small data transmission,

optionally, wherein the third information comprises at least one of following:

third indication information for notifying the core network device that the terminal device is capable of receiving the downlink information;

a third information type corresponding to the downlink information that the terminal device is capable of receiving;

a fourth protocol data unit session identifier corresponding to the downlink information that the terminal device is capable of receiving; or

a fourth quality of service flow identifier corresponding to the downlink information that the terminal device is capable of receiving.

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

in response to determining to transmit the downlink information corresponding to the small data transmission, transmitting, based on the third information, the downlink information corresponding to the small data transmission to the access network device.

10. A data transmission method, performed by an access network device, wherein the method comprises:

sending first information to a core network device, wherein the first information is related to configuration status of small data transmission of a terminal device; or

receiving second information sent by the core network device, wherein the second information is related to core network based mobile terminated communication.

11. The method according to claim 10, further comprising:

determining, based on the second information, whether to send third information to the core network device, wherein the third information is used for notifying the core network device that the terminal device is capable of receiving downlink information, and the downlink information comprises signaling and/or data buffered by the core network device for performing the core network based mobile terminated communication,

optionally, the second information comprises at least one of following:

second indication information indicating a buffer start;

a second information type corresponding to the buffered downlink information;

time information corresponding to the buffered downlink information;
a data size corresponding to the buffered downlink information;
a third protocol data unit session identifier corresponding to the buffered downlink information; or
a third quality of service flow identifier corresponding to the buffered downlink information.

12. The method according to claim 10 or 11, wherein receiving the second information sent by the core network device comprises:

receiving a second message sent by the core network device, wherein the second message carries the second information; or

receiving a control plane message sent by the core network device, wherein the control plane message carries the second information; or

receiving a user plane message sent by the core network device, wherein the user plane message carries the second information.

13. The method according to claim 12, further comprising:

determining to send the third information to the core network device, and generating the third information based on the second information; and

sending the third information to the core network device,

optionally, wherein the third information comprises at least one of following:

third indication information for notifying the core network device that the terminal device is capable of receiving the downlink information;

a third information type corresponding to the downlink information that the terminal device is capable of receiving;

a fourth protocol data unit session identifier corresponding to the downlink information that the terminal device is capable of receiving; or

a fourth quality of service flow identifier corresponding to the downlink information that the terminal device is capable of receiving.

14. A core network device, comprising:

a memory configured to store instruction; and

a processor,

wherein the processor, through executing the instructions, is configured to implement the method according to any one of claims 1 to 9.

15. An access network device, comprising:

a memory configured to store instruction; and

a processor,

wherein the processor, through executing the instructions, is configured to implement the method according to any one of claims 10 to 13.