

CLAIMS

1. A data processing method, comprising:

receiving, by an access network device, first information sent by a core network device or a terminal device; and

determining, by the access network device according to the first information, whether to perform security processing on to-be-processed data.

2. The method according to claim 1, wherein the receiving, by an access network device, first information sent by a core network device or a terminal device comprises:

receiving, by the access network device, the first information sent by the core network device, wherein the first information is used for indicating one type of the following information: security processing is required to be performed on the to-be-processed data, security processing is not needed to be performed on the to-be-processed data, and security processing is preferred to be performed on the to-be-processed data.

3. The method according to claim 2, wherein the determining, by the access network device according to the first information, whether to perform security processing on to-be-processed data comprises:

when the first information indicates that security processing is preferred to be performed on the to-be-processed data, determining, by the access network device according to subscription information of the terminal device and/or capability information of the terminal device, whether to perform security processing on the to-be-processed data.

4. The method according to claim 1, wherein if the to-be-processed data is uplink data, the first information comprises the information used for the terminal device to perform uplink processing, and the determining, by the access network device according to the first information, whether to perform security processing on to-be-processed data comprises:

when the first information indicates that security processing is preferred to be performed on the uplink data, determining, by the access network device according to

subscription information used for the terminal device to perform uplink processing and/or capability information used for the terminal device to perform uplink processing, whether to perform security processing on the uplink data.

5. The method according to claim 1, wherein if the to-be-processed data is downlink data, the first information comprises the information used for the terminal device to perform downlink processing, and the determining, by the access network device according to the first information, whether to perform security processing on to-be-processed data comprises:

when the first information indicates that security processing is preferred to be performed on the downlink data, determining, by the access network device according to subscription information used for the terminal device to perform downlink processing and/or capability information used for the terminal device to perform downlink processing, whether to perform security processing on the downlink data.

6. The method according to claim 4, wherein the determining, by the access network device according to capability information used for the terminal device to perform uplink processing, whether to perform security processing on the uplink data comprises:

determining, by the access network device according to a maximum data rate that can be supported by the terminal device to perform uplink security processing, whether to perform security processing on the uplink data.

7. The method according to claim 5, wherein the determining, by the access network device according to capability information used for the terminal device to perform downlink processing, whether to perform security processing on the downlink data comprises:

determining, by the access network device according to a maximum data rate that can be supported by the terminal device to perform downlink security processing, whether to perform security processing on the downlink data.

8. The method according to claim 7, wherein the determining, by the access network device according to a maximum data rate that can be supported by the terminal device to perform downlink security processing, whether to perform security processing

on the downlink data comprises:

determining, by the access network device, to perform security processing on the downlink data in a first quality of service (QoS), a first protocol data unit (PDU) session or a first bearer, wherein a data rate of the first QoS, a data rate of the first PDU session or a data rate of the first bearer is less than or equal to the maximum data rate that can be supported by the terminal device to perform downlink security processing; or

determining, by the access network device, to perform security processing on the downlink data in a plurality of QoSs, a plurality of PDU sessions or a plurality of bearers, wherein a sum of data rates of the plurality of QoSs, a sum of data rates of the plurality of PDU sessions or a sum of data rates of the plurality of bearers is less than or equal to the maximum data rate that can be supported by the terminal device to perform downlink security processing.

9. The method according to claim 7, wherein the determining, by the access network device according to a maximum data rate that can be supported by the terminal device to perform downlink security processing, whether to perform security processing on the downlink data comprises:

when a data rate assessed by the access network device is less than or equal to the maximum data rate that can be supported by the terminal device to perform downlink security processing, determining, by the access network device, to perform security processing on the downlink data.

10. The method according to any one of claims 3 to 9, wherein the subscription information of the terminal device and/or the capability information of the terminal device are/is provided by the core network device or the terminal device.

11. The method according to claim 1, wherein the first information is used for indicating subscription information of the terminal device and/or capability information of the terminal device.

12. An access network device, wherein the access network device comprises:

a receiving unit, configured to receive first information sent by a core network device or a terminal device; and

a determining unit, configured to determine, according to the first information,

whether to perform security processing on to-be-processed data.

13. The access network device according to claim 12, wherein the receiving unit is specifically configured to:

receive the first information sent by the core network device, wherein the first information is used for indicating one type of the following information: security processing is required to be performed on the to-be-processed data, security processing is not needed to be performed on the to-be-processed data, and security processing is preferred to be performed on the to-be-processed data.

14. The access network device according to claim 13, wherein the determining unit is specifically configured to:

when the first information indicates that security processing is preferred to be performed on the to-be-processed data, determine, according to subscription information of the terminal device and/or capability information of the terminal device, whether to perform security processing on the to-be-processed data.

15. The access network device according to claim 12, wherein if the to-be-processed data is uplink data, the first information comprises the information used for the terminal device to perform uplink processing, and the determining unit is specifically configured to:

when the first information indicates that security processing is preferred to be performed on the uplink data, determine, according to subscription information used for the terminal device to perform uplink processing and/or capability information used for the terminal device to perform uplink processing, whether to perform security processing on the uplink data.

16. The access network device according to claim 12, wherein if the to-be-processed data is downlink data, the first information comprises the information used for the terminal device to perform downlink processing, and the determining unit is specifically configured to:

when the first information indicates that security processing is preferred to be performed on the downlink data, determine, according to subscription information used for the terminal device to perform downlink processing and/or capability information

used for the terminal device to perform downlink processing, whether to perform security processing on the downlink data.

17. The access network device according to claim 15, wherein the determining unit is specifically configured to:

determine, according to a maximum data rate that can be supported by the terminal device to perform uplink security processing, whether to perform security processing on the uplink data.

18. The access network device according to claim 16, wherein the determining unit is specifically configured to:

determine, according to a maximum data rate that can be supported by the terminal device to perform downlink security processing, whether to perform security processing on the downlink data.

19. The access network device according to claim 18, wherein the determining unit is specifically configured to:

determine to perform security processing on the downlink data in a first quality of service (QoS), a first protocol data unit (PDU) session or a first bearer, wherein a data rate of the first QoS, a data rate of the first PDU session or a data rate of the first bearer is less than or equal to the maximum data rate that can be supported by the terminal device to perform downlink security processing; or

determine to perform security processing on the downlink data in a plurality of QoSs, a plurality of PDU sessions or a plurality of bearers, wherein a sum of data rates of the plurality of QoSs, a sum of data rates of the plurality of PDU sessions or a sum of data rates of the plurality of bearers is less than or equal to the maximum data rate that can be supported by the terminal device to perform downlink security processing.

20. The access network device according to claim 18, wherein the determining unit is specifically configured to:

when a data rate assessed by the access network device is less than or equal to the maximum data rate that can be supported by the terminal device to perform downlink security processing, determine to perform security processing on the downlink data.