CLAIMS

1. A method of data transmission, comprising:

acquiring, by a Non-Access Stratum, NAS, of a terminal device, description information of data to be transmitted;

determining, by the NAS, reliable transmission indication information corresponding to the data to be transmitted according to a preset mapping relationship between data description information and reliable transmission indication information and the description information of the data to be transmitted, the reliable transmission indication information being used to indicate whether to perform reliable transmission on the data to be transmitted; and

responsive to the reliable transmission indication information indicating reliable transmission to be performed on the data to be transmitted, after the NAS transmits the reliable transmission indication information corresponding to the data to be transmitted to an access stratum of the terminal device, sending, by the access stratum, a reliable transmission request message to a network device, the reliable transmission request message being configured for transmission of the data to be transmitted between the terminal device and the network device through a set reliable transmission policy.

2. The method of claim 1, wherein the description information, acquired by the NAS, of the data to be transmitted comprises:

an identifier of a service or application to which the data to be transmitted belongs;

or, a type of a service or application to which the data to be transmitted belongs;

or, self-driving degree information corresponding to a service or application to which the data to be transmitted belongs;

or, a data type of the data to be transmitted;

or, a priority of the data to be transmitted.

3. The method of claim 2, wherein the preset mapping relationship between the data description information and the reliable transmission indication information comprises:

a preset mapping relationship between: an identifier of a service or application to which data belongs, and reliable transmission indication information;

or, a preset mapping relationship between: types of services or applications to which the data belongs, and reliable transmission indication information;

or, a preset mapping relationship between: self-driving degree information corresponding to services or applications to which the data belongs, and reliable transmission indication information;

or, a preset mapping relationship between data types and reliable transmission indication information;

or, a preset mapping relationship between data priorities and reliable transmission indication information.

4. The method of claim 2 or 3, wherein determining, by the NAS, the reliable transmission indication information corresponding to the data to be transmitted according to the preset mapping relationship between the data description information and the reliable transmission indication information and the description information of the data to be transmitted comprises:

in case of the preset mapping relationship between the identifier of the service or application to which data belongs and the reliable transmission indication information, when the identifier of the service or application to which the data to be transmitted belongs is matched with the mapping relationship, determining that the reliable transmission indication information corresponding to the data to be transmitted indicates reliable transmission to be performed on the data to be transmitted;

or, in case of the preset mapping relationship between the types of the services or applications to which the data belongs and the reliable transmission indication information, when the type of the service or application to which the data to be transmitted belongs is matched with the mapping relationship, determining that the reliable transmission indication information corresponding to the data to be transmitted indicates reliable transmission to be performed on the data to be transmitted;

or, in case of the preset mapping relationship between the self-driving degree information corresponding to the services or applications to which the data belongs and the reliable transmission indication information, when the self-driving degree information corresponding to the service or application to which the data to be transmitted belongs is matched with the mapping relationship, determining that the reliable transmission indication information corresponding to the data to be transmitted indicates reliable transmission to be performed on the data to be transmitted;

or, in case of the preset mapping relationship between the data types and the reliable transmission indication information, when the data type of the data to be transmitted is matched with the mapping relationship, determining that the reliable transmission indication information corresponding to the data to be transmitted indicates reliable transmission to be performed on the data to be transmitted;

or, in case of the preset mapping relationship between the data priorities and the reliable transmission indication information, when the priority of the data to be transmitted is matched with the mapping relationship, determining that the reliable transmission indication information corresponding to the data to be transmitted indicates reliable transmission to be performed on the data to be transmitted.

5. The method of claim 1, further comprising:

setting, by the NAS of the terminal device, the mapping relationship between the data description information and the reliable transmission indication information based on pre-configuration or a content defined in an existing communication protocol.

6. The method of claim 1, after sending, by the access stratum, the reliable transmission request message to the network device, further comprising:

sending the data to be transmitted to the network device based on a set Carrier Aggregation (CA) policy.

7. The method of claim 1, further comprising:

responsive to the reliable transmission indication information indicating reliable transmission not to be performed on the data to be transmitted, not transmitting, by the NAS, the data to be transmitted through the reliable transmission policy.

8. A terminal device, comprising an acquisition part, determination part and transmission part in a Non-Access Stratum (NAS) and a sending part in an access stratum, wherein

the acquisition part is configured to acquire description information of data to be transmitted;

the determination part is configured to determine reliable transmission indication information corresponding to the data to be transmitted according to a preset mapping relationship between data description information and reliable transmission indication information and the description information of the data to be transmitted, the reliable transmission indication information being used to indicate whether to perform reliable transmission on the data to be transmitted;

the transmission part is configured to transmit the reliable transmission indication information corresponding to the data to be transmitted to the access stratum of the terminal device responsive to the reliable transmission indication information indicating reliable transmission to be performed on the data to be transmitted; and

the sending part is configured to send a reliable transmission request message to a

network device, the reliable transmission request message being configured for transmission of the data to be transmitted between the terminal device and the network device through a set reliable transmission policy.

9. The terminal device of claim 8, wherein the description information, acquired by the acquisition part, of the data to be transmitted comprises:

an identifier of a service or application to which the data to be transmitted belongs;

or, a type of a service or application to which the data to be transmitted belongs;

or, self-driving degree information corresponding to a service or application to which the data to be transmitted belongs;

or, a data type of the data to be transmitted;

or, a priority of the data to be transmitted.

10. The terminal device of claim 9, wherein the preset mapping relationship between the data description information and the reliable transmission indication information comprises:

a preset mapping relationship between: an identifier of a service or application to which data belongs, and reliable transmission indication information;

or, a preset mapping relationship between: types of services or applications to which the data belongs, and reliable transmission indication information;

or, a preset mapping relationship between: self-driving degree information corresponding to services or applications to which the data belongs, and reliable transmission indication information;

or, a preset mapping relationship between data types and reliable transmission indication information;

or, a preset mapping relationship between data priorities and reliable transmission indication information.

11. The terminal device of claim 9 or 10, wherein the determination part is configured to:

in case of the preset mapping relationship between the identifier of the service or application to which data belongs and the reliable transmission indication information, when the identifier of the service or application to which the data to be transmitted belongs is matched with the mapping relationship, determine that the reliable transmission indication information corresponding to the data to be transmitted indicates reliable transmission to be performed on the data to be transmitted;

or, in case of the preset mapping relationship between the types of the services or applications to which the data belongs and the reliable transmission indication information, when the type of the service or application to which the data to be transmitted belongs is matched with the mapping relationship, determine that the reliable transmission indication information corresponding to the data to be transmitted indicates reliable transmission to be performed on the data to be transmitted;

or, in case of the preset mapping relationship between the self-driving degree information corresponding to the services or applications to which the data belongs and the reliable transmission indication information, when the self-driving degree information corresponding to the service or application to which the data to be transmitted belongs is matched with the mapping relationship, determine that the reliable transmission indication information corresponding to the data to be transmitted indicates reliable transmission to be performed on the data to be transmitted;

or, in case of the preset mapping relationship between the data types and the reliable transmission indication information, when the data type of the data to be transmitted is matched with the mapping relationship, determine that the reliable transmission indication information corresponding to the data to be transmitted indicates reliable transmission to be performed on the data to be transmitted;

or, in case of the preset mapping relationship between the data priorities and the reliable transmission indication information, when the priority of the data to be transmitted is matched with the mapping relationship, determine that the reliable transmission indication information corresponding to the data to be transmitted indicates reliable transmission to be performed on the data to be transmitted.

12. The terminal device of claim 8, further comprising a setting part in the NAS, configured to set the mapping relationship between the data description information and the reliable transmission indication information based on pre-configuration or a content defined in an existing communication protocol.

13. The terminal device of claim 8, wherein the sending part is further configured to send the data to be transmitted to the network device based on a set Carrier Aggregation (CA) policy.

14. The terminal device of claim 8, wherein the transmission part is further configured to, responsive to the reliable transmission indication information indicating reliable transmission not to be performed on the data to be transmitted, not transmit the data to be transmitted through the reliable transmission policy.

15. A computer storage medium having stored a data transmission program that when executed by at least one processor, causes the processor to implement the steps of the method of any one of claims 1-7.