CLAIMS

What is claimed is:

1. A method for processing terminal device capability information, performed by~~applied to~~ a terminal device and comprising:

receiving a second message transmitted by a network-side device, wherein the second message comprises second information, the second information is used to indicate a reporting manner, and the reporting manner comprises reporting all capability information of the terminal device in a radio resource control RRC message segmentation manner;

transmitting a first message to ~~a~~ the network-side device when a size of capability information of the terminal device is greater than a maximum size of a packet data aggregation protocol PDCP service data unit SDU, wherein

the first message comprises first information, and the first information comprises information used for indicating that~~ the size of the capability information of the terminal device is greater than the maximum size of the PDCP SDU~~ the terminal device has remaining capability information that has not been reported;

transmitting the capability information of the terminal device by using at least one PDCP SDU based on the reporting manner, wherein capability information carried by any one of the at least one PDCP SDU is partial capability information of the terminal device.

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

~~transmitting the capability information of the terminal device by using at least one PDCP SDU based on a reporting manner, wherein~~

~~capability information carried by any one of the at least one PDCP SDU is partial capability information of the terminal device;~~

~~wherein the reporting manner comprises:~~

~~reporting all capability information of the terminal device in a radio resource control RRC message segmentation manner; or~~

~~reporting partial capability information of the terminal device.~~

~~3. The method according to claim 2, wherein before the transmitting the capability information of the terminal device by using at least one PDCP SDU based on a reporting manner, the method further comprises:~~

~~receiving a second message transmitted by the network-side device, wherein the second message comprises second information, and the second information is used to indicate the reporting manner.~~

~~4~~2. The method according to claim 1, wherein

the first message is a connection configuration complete message; or

the first message is a message that is transmitted in response to capability request information transmitted by the network-side device; or

the first message is an auxiliary message transmitted by the terminal device to the network-side device.

~~5~~3. The method according to claim ~~4~~2, wherein when the first message is a message that is transmitted in response to the capability request information transmitted by the network-side device, the first message further carries partial capability information of the terminal device.

~~6~~4. The method according to any one of claims 1 to ~~5~~3, wherein the first information further comprises at least one of the following:

the size of the capability information of the terminal device;

information used for indicating that the terminal device supports radio resource control RRC message segmentation;

~~information used for indicating that the terminal device has remaining capability information that has not been reported;~~ and

a size of the remaining capability information, wherein the remaining capability information is capability information other than the reported capability information in the capability information of the terminal device.

5. The method according to claim 1, wherein the second message further carries capability request information.

6. The method according to any one of claims 1 to 2, wherein the first information further comprises at least one of the following:

the size of the capability information of the terminal device;

information used for indicating that the terminal device supports radio resource control, RRC, message segmentation.

7. A method for processing terminal device capability information, performed by~~applied to~~ a network-side device and comprising:

receiving a first message transmitted by a terminal device, wherein

the first message comprises first information, and the first information comprises information used for indicating that the terminal device has remaining capability information that has not been reported; ~~a size of capability information of the terminal device is greater than a maximum size of a packet data convergence protocol PDCP service data unit SDU~~

receiving capability information of the terminal device that is transmitted by the terminal device by using at least one PDCP SDU based on a reporting manner, wherein capability information carried by any one of the at least one PDCP SDU is partial capability information of the terminal device;

before the receiving capability information of the terminal device that is transmitted by the terminal device by using at least one PDCP SDU based on a reporting manner, the method further comprises:

transmitting a second message to the terminal device, wherein the second message comprises second information, the second information is used to indicate the reporting manner, and the reporting manner comprises reporting all capability information of the terminal device in a radio resource control RRC message segmentation manner.

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

~~receiving capability information of the terminal device that is transmitted by the terminal device by using at least one PDCP SDU based on a reporting manner, wherein~~

~~capability information carried by any one of the at least one PDCP SDU is partial capability information of the terminal device;~~

~~wherein the reporting manner comprises:~~

~~reporting all capability information of the terminal device in a radio resource control RRC message segmentation manner; or~~

~~reporting partial capability information of the terminal device.~~

~~9. The method according to claim 8, wherein before the receiving capability information of the terminal device that is transmitted by the terminal device by using at least one PDCP SDU based on a reporting manner, the method further comprises:~~

~~transmitting a second message to the terminal device, wherein the second message comprises second information, and the second information is used to indicate the reporting manner.~~

~~10~~8. The method according to claim 7, wherein before the receiving a first message transmitted by a terminal device, the method further comprises:

transmitting capability request information to the terminal device, wherein

the first message is a message transmitted in response to the capability request information.

9~~11~~. The method according to claim ~~10~~8, wherein the first message further carries partial capability information of the terminal device.

~~12~~10. The method according to any one of claims 7 to ~~11~~9, wherein the first information further comprises at least one of the following:

the size of the capability information of the terminal device;

information used for indicating that the terminal device supports radio resource control RRC message segmentation;

~~information used for indicating that the terminal device has remaining capability information that has not been reported;~~ and

a size of the remaining capability information, wherein the remaining capability information is capability information other than the reported capability information in the capability information of the terminal device.

11. The method according to any one of claims 7 to 8, wherein the first information further comprises at least one of the following:

the size of the capability information of the terminal device; and

information used for indicating that the terminal device supports radio resource control, RRC, message segmentation.

12. The method according to claim 7, wherein the second message further carries capability request information.

13. The method according to claim 7, wherein

the first message is a connection configuration complete message; or

the first message is an auxiliary message transmitted by the terminal device to the network-side device.

~~13~~14. A terminal device, comprising:

a receiving module, configured to, receive a second message transmitted by a network-side device, wherein the second message comprises second information, the second information is used to indicate a reporting manner, and the reporting manner comprises reporting all capability information of the terminal device in a radio resource control RRC message segmentation manner;

a transmitting module, configured to transmit a first message to ~~a~~ the network-side device when a size of capability information of the terminal device is greater than a maximum size of a packet data aggregation protocol PDCP service data unit SDU, wherein

the first message comprises first information, and the first information comprises information used for indicating that ~~the size of the capability information of the terminal device is greater than the maximum size of the PDCP SDU~~ the terminal device has remaining capability information that has not been reported;

a transmitting module, configured to transmit the capability information of the terminal device by using at least one PDCP SDU based on the reporting manner, wherein capability information carried by any one of the at least one PDCP SDU is partial capability information of the terminal device.

~~14. The terminal device according to claim 13, further comprising:~~

~~a transmitting module, configured to transmit the capability information of the terminal device by using at least one PDCP SDU based on a reporting manner, wherein~~

~~capability information carried by any one of the at least one PDCP SDU is partial capability~~

~~information of the terminal device;~~

~~wherein the reporting manner comprises:~~

~~reporting all capability information of the terminal device in a radio resource control RRC message segmentation manner; or~~

~~reporting partial capability information of the terminal device.~~

~~15. The terminal device according to claim 14, further comprising:~~

~~a receiving module, configured to: before the capability information of the terminal device is transmitted by using the at least one PDCP SDU based on the reporting manner, receive a second message transmitted by the network-side device, wherein the second message comprises second information, and the second information is used to indicate the reporting manner.~~

~~16~~15. The terminal device according to ~~any one of claims 13 to 15~~ claim 14, wherein the first information further comprises at least one of the following:

the size of the capability information of the terminal device;

information used for indicating that the terminal device supports radio resource control RRC message segmentation;

~~information used for indicating that the terminal device has remaining capability information that has not been reported;~~ and

a size of the remaining capability information, wherein the remaining capability information is capability information other than the reported capability information in the capability information of the terminal device.

~~17~~16. A network-side device, comprising:

a first receiving module, configured to receive a first message transmitted by a terminal device; ~~and~~wherein

the first message comprises first information, and the first information comprises information used for indicating that ~~a size of capability information of the terminal device is greater than a maximum size of a packet data convergence protocol PDCP service data unit SDU~~ the terminal device has remaining capability information that has not been reported;

a second receiving module, configured to receive capability information of the terminal device that is transmitted by the terminal device by using at least one PDCP SDU based on a reporting manner, wherein capability information carried by any one of the at least one PDCP SDU is partial capability information of the terminal device;

a first transmitting module, configured to, before receiving capability information of the terminal device that is transmitted by the terminal device by using at least one PDCP SDU based on a reporting manner, transmit a second message to the terminal device, wherein the second message comprises second information, the second information is used to indicate the reporting

manner, and the reporting manner comprises reporting all capability information of the terminal device in a radio resource control RRC message segmentation manner.

~~18. The network-side device according to claim 17, further comprising:~~

~~a second receiving module, configured to receive capability information of the terminal device that is transmitted by the terminal device by using at least one PDCP SDU based on a reporting manner, wherein~~

~~capability information carried by any one of the at least one PDCP SDU is partial capability information of the terminal device;~~

~~wherein the reporting manner comprises:~~

~~reporting all capability information of the terminal device in a radio resource control RRC message segmentation manner; or~~

~~reporting partial capability information of the terminal device.~~

~~19. The network-side device according to claim 18, further comprising:~~

~~a first transmitting module, configured to transmit a second message to the terminal device, wherein the second message comprises second information, and the second information is used to indicate the reporting manner.~~

~~20~~17. The network-side device according to ~~any one of claims 17 to 19~~ claim 16, wherein the first information further comprises at least one of the following:

the size of the capability information of the terminal device;

information used for indicating that the terminal device supports radio resource control RRC message segmentation;

~~information used for indicating that the terminal device has remaining capability information that has not been reported;~~ and

a size of the remaining capability information, wherein the remaining capability information is capability information other than the reported capability information in the capability information of the terminal device.

18. The network-side device according to claim 16, wherein the second message further carries capability request information.

19. A computer-readable storage medium, wherein a computer program is stored in the computer-readable storage medium, and when the computer program is executed by a processor, the steps of the method for processing terminal device capability information according to any one of claims 1 to 6 are implemented.

20. A computer-readable storage medium, wherein a computer program is stored in the computer-readable storage medium, and when the computer program is executed by a processor, the steps of the method for processing terminal device capability information according to any

one of claims 7 to 13 are implemented.