CLAIMS

What is claimed is:

1. A method for connection failure recovery, applied to a terminal device, wherein the method comprises:

determining a cause of a master cell group MCG failure; and

performing corresponding connection failure recovery processing and/or reporting information related to the MCG failure based on the cause of the MCG failure;

wherein the performing corresponding connection failure recovery processing and/or reporting information related to the MCG failure based on the cause of the MCG failure comprises:

when the cause of the MCG failure is a second cause, skipping initiating an MCG re-establishment procedure or a re-establishment procedure of the terminal device, performing a suspend operation on the MCG, and sending the information related to the MCG failure to a network device serving a secondary cell group SCG;

wherein the second cause comprises at least one of the following: radio link failure; and failure of handover based on a second handover command, wherein the second handover command does not comprise SCG configuration.

2. The method according to claim 1, wherein the performing corresponding connection failure recovery processing based on the cause of the MCG failure comprises:

when the cause of the MCG failure is a first cause, initiates an MCG re-establishment procedure or a re-establishment procedure of the terminal device, wherein

the first cause comprises at least one of the following:

signaling radio bearer SRB integrity check failure;

radio resource control RRC reconfiguration failure;

failure of handover based on a first handover command, wherein the first handover command comprises secondary cell group SCG configuration;

a quantity of uplink transmissions exceeding a threshold; and

random access channel RACH transmission failure.

~~3. The method according to claim 1, wherein the performing corresponding connection failure recovery processing and/or reporting information related to the MCG failure based on the cause of the MCG failure comprises at least one of the following:~~

~~when the cause of the MCG failure is a second cause, skipping initiating an MCG re-~~

~~establishment procedure or a re-establishment procedure of the terminal device;~~

~~when the cause of the MCG failure is a second cause, performing a suspend (suspend) operation on the MCG; and~~

~~when the cause of the MCG failure is a second cause, sending the information related to the MCG failure to a network device serving an SCG, wherein~~

~~the second cause comprises at least one of the following: radio link failure; and failure of handover based on a second handover command, wherein the second handover command does not comprise SCG configuration.~~

3. The method according to claim 1, wherein, the skipping initiating the MCG re-establishment procedure or the re-establishment procedure of the terminal device, performing the suspend operation on the MCG, and sending the information related to the MCG failure to the network device serving the SCG, when the cause of the MCG failure is the second cause, comprises:

in EUTRA-NR Dual Connectivity (EN-DC) or in NG-RAN EUTRA-NR Dual Connectivity (NGEN-DC), when the cause of the MCG failure is the second cause, skipping initiating the MCG re-establishment procedure or the re-establishment procedure of the terminal device, performing the suspend operation on the MCG, and sending the information related to the MCG failure to the network device serving the SCG.

4. The method according to claim ~~3~~1, wherein the information related to the MCG failure comprises a cause value of the MCG failure.

5. The method according to claim 4, wherein the cause value comprises at least one of the following: a first value, a second value, and a third value, wherein the first value indicates a radio link failure, the second value indicates a handover failure, and the third value indicates at least one of the following: T304 timer expiry, T301 timer expiry, a maximum quantity of uplink transmissions reached, and RACH transmission failure.

~~6. A method for connection failure recovery, applied to a first network device, wherein the method comprises:~~

~~receiving information related to an MCG failure sent from a terminal device; and~~

~~sending the information related to the MCG failure to a second network device or a third network device, wherein~~

~~the first network device serves an SCG, the second network device serves a source MCG, and~~

~~the third network device serves a target MCG; or~~

~~the first network device serves an SCG, the second network device serves a target MCG, and the third network device serves a source MCG.~~

~~7. The method according to claim 6, wherein the information related to the MCG failure comprises a cause value of the MCG failure; and~~

~~the sending the information related to the MCG failure to a second network device or a third network device comprises:~~

~~sending the information related to the MCG failure to the second network device or the third network device based on the cause value of the MCG failure in the information related to the MCG failure.~~

~~8. The method according to claim 7, wherein the cause value comprises at least one of the following: a first value, a second value, and a third value, wherein the first value indicates a radio link failure, the second value indicates a handover failure, and the third value indicates at least one of the following: T304 timer expiry, T301 timer expiry, a maximum quantity of uplink transmissions reached, and RACH transmission failure; and~~

~~the sending the information related to the MCG failure to the second network device or the third network device based on the cause value of the MCG failure in the information related to the MCG failure comprises:~~

~~when the cause value of the MCG failure is the first value or the third value, sending the information related to the MCG failure to the second network device; and~~

~~when the cause value of the MCG failure is the second value, sending the information related to the MCG failure to the third network device.~~

~~9~~6. A terminal device, comprising:

a determining module, configured to determine a cause of a master cell group MCG failure; and

a processing module, configured to perform corresponding connection failure recovery processing and/or report information related to the MCG failure based on the cause of the MCG failure;

wherein performing corresponding connection failure recovery processing and/or reporting information related to the MCG failure based on the cause of the MCG failure comprises:

when the cause of the MCG failure is a second cause, skipping initiating an MCG re-

establishment procedure or a re-establishment procedure of the terminal device, performing a suspend operation on the MCG, and sending the information related to the MCG failure to a network device serving a secondary cell group SCG;

wherein the second cause comprises at least one of the following: radio link failure; and failure of handover based on a second handover command, wherein the second handover command does not comprise SCG configuration.

7. The terminal device according to claim 6, wherein, the skipping initiating the MCG re-establishment procedure or the re-establishment procedure of the terminal device, performing the suspend operation on the MCG, and sending the information related to the MCG failure to the network device serving the SCG, when the cause of the MCG failure is the second cause, comprises:

in EUTRA-NR Dual Connectivity (EN-DC) or in NG-RAN EUTRA-NR Dual Connectivity (NGEN-DC), when the cause of the MCG failure is the second cause, skipping initiating the MCG re-establishment procedure or the re-establishment procedure of the terminal device, performing the suspend operation on the MCG, and sending the information related to the MCG failure to the network device serving the SCG.

~~10. A first network device, comprising:~~

~~a receiving module, configured to receive information related to an MCG failure sent from a terminal device; and~~

~~a sending module, configured to send the information related to the MCG failure to a second network device or a third network device, wherein~~

~~the first network device serves an SCG, the second network device serves a source MCG, and the third network device serves a target MCG; or~~

~~the first network device serves an SCG, the second network device serves a target MCG, and the third network device serves a source MCG.~~

~~11~~8. A terminal device, comprising a processor, a memory, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the method for connection failure recovery according to any one of claims 1 to 5 are implemented.

~~12. A network device, comprising a processor, a memory, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is~~

~~executed by the processor, the steps of the method for connection failure recovery according to any one of claims 6 to 8 are implemented.~~

~~13~~9. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by a processor, the steps of the method for connection failure recovery according to any one of claims 1 to ~~8~~5 are implemented.