CLAIMS

What is claimed is:

1. A relay reselection method applied to a first device, wherein the method comprises:

performing a corresponding relay reselection operation in a case that a first relay reselection condition is met;

wherein in a case that the first device is a relay device, the performing a corresponding relay reselection operation comprises: notifying, by the relay device, a remote terminal device to perform relay reselection; wherein the first relay reselection condition of the relay device comprises: the relay device on a communication link between the relay device and a network-side device have been switched; wherein the notifying, by the relay device, a remote terminal device to perform relay reselection comprises: transmitting, to the remote terminal device, a radio resource control message for instructing the remote terminal device to perform relay reselection; wherein the first relay reselection condition of the relay device further comprises: the relay device having detected a beam failure on a communication link; and the first relay reselection condition of the relay device further comprises at least one of the following: a beam failure recovery timer started by the relay device having expired, a random access procedure for beam failure recovery triggered by the relay device having failed, the relay device having started a beam failure recovery timer, the relay device having triggered a random access procedure for beam failure recovery, the relay device having started a beam failure detection timer, a beam failure detection timer started by the relay device having expired, and a count value of a beam failure instance counter being greater than a preset count value;

in a case that the first device is a remote terminal device, the performing a corresponding relay reselection operation comprises: performing relay reselection; wherein the first relay reselection condition of the remote terminal device comprises:

the remote terminal device having detected a radio link failure on a communication link between the remote terminal device and the relay device; wherein the first relay reselection condition of the remote terminal device further comprises at least one of the following:

the remote terminal device having detected a beam failure on a communication link between the remote terminal device and a relay device;

the remote terminal device having received no reference signal for radio link monitoring from the relay device within preset first duration;

the remote terminal device having received no service data from the relay device within preset second duration;

the remote terminal device having received no feedback message from the relay device within preset third duration; and

the remote terminal device having received no sidelink discovery signal from the relay device within preset fourth duration.

2. The method according to claim 1, wherein the notifying a remote terminal device to perform relay reselection further comprises at least one of the following:

transmitting no reference signal for radio link monitoring on a communication link with the remote terminal device;

transmitting no service data on a communication link with the remote terminal device;

transmitting no feedback message on a communication link with the remote terminal device; and

transmitting no sidelink discovery signal on a communication link with the remote terminal device.

3. The method according to claim 2, wherein the radio resource control message comprises at least one of the following:

a radio resource control release message, a radio resource control reconfiguration message, a radio resource control connection establishment reject message, and other radio resource control messages than the radio resource control release message, the radio resource control reconfiguration message, and the radio

resource control connection establishment reject message;

second indication information, wherein the second indication information is used to indicate a relay reselection condition satisfied by the relay device.4. The method according to claim 1, wherein the first relay reselection condition of the relay device further comprises at least one of the following:

the relay device having detected a radio link failure on a communication link;

the relay device having performed a radio resource control connection reestablishment on a communication link between the relay device and the network-side device;

the relay device having received first indication information transmitted by the network-side device, wherein the first indication information is used to indicate the relay device to perform the corresponding relay reselection operation; and

the relay device having not satisfied a first condition, wherein the first condition is a condition for serving as a relay.

5. The method according to claim 4, wherein the first condition comprises at least one of the following:

at least one beam measurement result measured by the relay device in a serving cell being greater than a first preset beam measurement result;

at least one beam measurement result measured by the relay device in a serving cell being smaller than a second preset beam measurement result.

6. The method according to claim 4, wherein the relay device having detected a beam failure on a communication link comprises at least one of the following:

the relay device having detected a beam failure on a communication link between the relay device and the remote terminal device;

the relay device having detected a beam failure on a communication link between the relay device and the network-side device.

7. The method according to claim 4, wherein the relay device having detected a radio link failure on a communication link comprises at least one of the following:

the relay device having detected a radio link failure on a communication link between the relay device and the remote terminal device;

the relay device having detected a radio link failure on a communication link between the relay device and the network-side device.

8. The method according to claim 1, wherein the radio resource control message comprises third indication information, or at least one of the following:

a radio resource control release message, a radio resource control reconfiguration message, a radio resource control connection establishment reject message, and other radio resource control messages than the radio resource control release message, the radio resource control reconfiguration message, and the radio resource control connection establishment reject message;

wherein the third indication information is used to indicate a relay reselection condition satisfied by the relay device.

9. A relay device, comprising a memory, a processor, and a computer program that is stored in the memory and capable of running on the processor, wherein

when the processor executes the computer program, the following step is implemented:

performing a corresponding relay reselection operation in a case that a first relay reselection condition is met,

wherein in a case that the device is a relay device, and the performing a corresponding relay reselection operation comprises: notifying a remote terminal device to perform relay reselection, wherein the first relay reselection condition of the relay device comprises: the relay device on a communication link between the relay device and a network-side device having been switched; wherein the notifying, by the relay device, a remote terminal device to perform relay reselection comprises: transmitting, to the remote terminal device, a radio resource control message for instructing the remote terminal device to perform relay reselection; wherein the first relay reselection condition of the relay device further comprises: the relay device having detected a beam failure on a communication link; and the first relay reselection condition of the relay device further comprises at least one of the following: a beam failure recovery timer started by the relay device having expired,

a random access procedure for beam failure recovery triggered by the relay device having failed, the relay device having started a beam failure recovery timer, the relay device having triggered a random access procedure for beam failure recovery, the relay device having started a beam failure detection timer, a beam failure detection timer started by the relay device having expired, and a count value of a beam failure instance counter being greater than a preset count value;

in a case that the device is a remote terminal device, and the performing a corresponding relay reselection operation comprises: performing relay reselection, wherein the first relay reselection condition of the remote terminal device comprises: the remote terminal device having detected a radio link failure on a communication link between the remote terminal device and the relay device; wherein the first relay reselection condition of the remote terminal device further comprises at least one of the following:

the remote terminal device having detected a beam failure on a communication link between the remote terminal device and a relay device;

the remote terminal device having received no reference signal for radio link monitoring from the relay device within preset first duration;

the remote terminal device having received no service data from the relay device within preset second duration;

the remote terminal device having received no feedback message from the relay device within preset third duration; and

the remote terminal device having received no sidelink discovery signal from the relay device within preset fourth duration.

10. The device according to claim 9, wherein the first relay reselection condition of the relay device further comprises at least one of the following:

the relay device having detected a radio link failure on a communication link;

the relay device having performed a radio resource control connection reestablishment on a communication link between the relay device and the network-side device;

the relay device having received first indication information transmitted by the

network-side device, wherein the first indication information is used to indicate the relay device to perform the corresponding relay reselection operation; and

the relay device having not satisfied a first condition, wherein the first condition is a condition for serving as a relay.

11. The device according to claim 10, wherein the relay device having detected a radio link failure on a communication link comprises at least one of the following:

the relay device having detected a radio link failure on a communication link between the relay device and the remote terminal device;

the relay device having detected a radio link failure on a communication link between the relay device and the network-side device.

12. A non-transitory computer-readable storage medium, wherein the non-transitory computer-readable storage medium stores a computer program, and the computer program is executed by a processor to perform the following steps:

performing, by a first device, a corresponding relay reselection operation in a case that a first relay reselection condition is met,

wherein in a case that the first device is a relay device, and the performing a corresponding relay reselection operation comprises: notifying, by the relay device, a remote terminal device to perform relay reselection, wherein the first relay reselection condition of the relay device comprises: the relay device on a communication link between the relay device and a network-side device have been switched; wherein the notifying, by the relay device, a remote terminal device to perform relay reselection comprises: transmitting, to the remote terminal device, a radio resource control message for instructing the remote terminal device to perform relay reselection; wherein the first relay reselection condition of the relay device further comprises: the relay device having detected a beam failure on a communication link; and the first relay reselection condition of the relay device further comprises at least one of the following: a beam failure recovery timer started by the relay device having expired, a random access procedure for beam failure recovery triggered by the relay device having failed, the relay device having started

a beam failure recovery timer, the relay device having triggered a random access procedure for beam failure recovery, the relay device having started a beam failure detection timer, a beam failure detection timer started by the relay device having expired, and a count value of a beam failure instance counter being greater than a preset count value;

in a case that the first device is a remote terminal device, and the performing a corresponding relay reselection operation comprises: performing relay reselection, wherein the first relay reselection condition of the remote terminal device comprises: the remote terminal device having detected a radio link failure on a communication link between the remote terminal device and the relay device; wherein the first relay reselection condition of the remote terminal device further comprises at least one of the following:

the remote terminal device having detected a beam failure on a communication link between the remote terminal device and a relay device;

the remote terminal device having received no reference signal for radio link monitoring from the relay device within preset first duration;

the remote terminal device having received no service data from the relay device within preset second duration;

the remote terminal device having received no feedback message from the relay device within preset third duration; and

the remote terminal device having received no sidelink discovery signal from the relay device within preset fourth duration.

13. The non-transitory computer-readable storage medium according to claim 12, wherein the notifying a remote terminal device to perform relay reselection further comprises at least one of the following:

transmitting no reference signal for radio link monitoring on a communication link with the remote terminal device;

transmitting no service data on a communication link with the remote terminal device;

transmitting no feedback message on a communication link with the remote

terminal device; and

transmitting no sidelink discovery signal on a communication link with the remote terminal device.

14. The non-transitory computer-readable storage medium according to claim 12, wherein the first relay reselection condition of the relay device further comprises at least one of the following:

the relay device having detected a radio link failure on a communication link;

the relay device having performed a radio resource control connection reestablishment on a communication link between the relay device and the network-side device;

the relay device having received first indication information transmitted by the network-side device, wherein the first indication information is used to indicate the relay device to perform the corresponding relay reselection operation; and

the relay device having not satisfied a first condition, wherein the first condition is a condition for serving as a relay.