CLAIMS

What is claimed is:

1. A method for configuring a sidelink relay architecture, performed by a remote terminal, wherein the method comprises:

determining a sidelink configuration for the sidelink relay architecture based on at least one of first configuration information from a relay terminal and second configuration information from a network-side device,

wherein, the determining a sidelink configuration for the sidelink relay architecture comprises:

in a Layer 2 L2 relay architecture, determining the sidelink configuration for the sidelink relay architecture based on the second configuration information from the network-side device received in a Radio Resource Control RRC procedure or determining the sidelink configuration for the sidelink relay architecture based on the first configuration information from the relay terminal received in a Proximity Communication PC5 RRC procedure, wherein in the L2 relay architecture, the remote terminal determines, for sidelink transmission based on the second configuration information, a sidelink radio bearer SLRB configuration, a service data adaptation protocol SDAP configuration, and a packet data convergence protocol PDCP configuration; and the remote terminal determines, based on the second configuration information or the first configuration information, a radio link control RLC bearer configuration for sidelink transmission.

2. The method according to claim 1, wherein before the determining a sidelink configuration for the sidelink relay architecture, the remote terminal is in offline state, and the determining a sidelink configuration for the sidelink relay architecture based on at least one of first configuration information from a relay terminal and second configuration information from a network-side device further comprises:

determining the sidelink configuration for the sidelink relay architecture based on pre-configuration information, wherein the remote terminal is further configured to

establish the L2 relay architecture with the relay terminal based on the pre-configuration information.

3. The method according to claim 1, wherein before the determining a sidelink configuration for the sidelink relay architecture, the remote terminal is in idle state or connected state, and the determining a sidelink configuration for the sidelink relay architecture based on at least one of first configuration information from a relay terminal and second configuration information from a network-side device further comprises:

determining the sidelink configuration for the sidelink relay architecture based on system message received from a camping cell or serving cell or the second configuration information from the network-side device, wherein the remote terminal is further configured to establish an L2 relay architecture with the relay terminal based on the system message or the second configuration information; and

in the L2 relay architecture, determining the sidelink configuration for the sidelink relay architecture still based on the system message or determining the sidelink configuration for the sidelink relay architecture based on the second configuration information from the network-side device received in an RRC procedure.

4. The method according to claim 3, wherein

when establishing an RRC connection to the network-side device, the remote terminal carries home information of the remote terminal, wherein the home information comprises at least one of the following of the remote terminal: camping cell information, a status of obtaining sidelink system information, and an offline status.

5. The method according to claim 3, wherein the method further comprises:

determining whether the system message or the second configuration information used in a first serving cell is applicable to a second serving cell, wherein

the first serving cell is a serving cell before the remote terminal establishes an RRC connection, the second serving cell is a serving cell after the RRC connection is established, and the first serving cell is the same as or different from the second serving cell;

or, wherein the method further comprises:

transmitting service characteristics of transmission between the remote terminal and the relay terminal to the network-side device, wherein the service characteristics are used by the network-side device to configure radio bearer information for the remote terminal; and

receiving the radio bearer information, and establishing a radio bearer based on the radio bearer information, wherein the radio bearer is used by the remote terminal to communicate with the relay terminal;

or, wherein the method further comprises:

transmitting service characteristics of transmission between the remote terminal and the relay terminal to the network-side device, wherein the service characteristics are used by the network-side device to configure dedicated resource information for the remote terminal; and

receiving the dedicated resource information, and communicating with the relay terminal on a dedicated resource indicated by the dedicated resource information.

6. The method according to claim 1, wherein the method further comprises:

performing Carrier Aggregation CA duplication transmission for a target service with the relay terminal, wherein the CA duplication transmission for the target service is:

directly configured for the remote terminal;

configured by the network-side device for an SLRB corresponding to the target service in a case that the remote terminal reports quality of service QoS of the target service;

enabling a CA duplication transmission function in a QoS profile used for the target service; or

enabling a CA duplication transmission function in a QoS feature profile of the target service.

7. The method according to claim 1, wherein multiple RLC bearers used by the remote terminal to transmit duplicate data are configured to different component carrier CC subsets, respectively.

8. The method according to claim 1, wherein in a case that dual connectivity is configured for a Uu interface between the relay terminal and the network-side device:

the remote terminal uses a set of security parameters, and multiple data radio bearer DRBs of the remote terminal correspond to one network device; or

multiple DRBs of the remote terminal use multiple sets of security parameters.

9. A remote terminal, comprising a processor, a memory, and a program or instructions stored in the memory and capable of running on the processor, wherein when the program or instructions are executed by the processor, a method for configuring a sidelink relay architecture is implemented,

wherein the method comprises:

determining a sidelink configuration for the sidelink relay architecture based on at least one of first configuration information from a relay terminal and second configuration information from a network-side device,

wherein the determining a sidelink configuration for the sidelink relay architecture based on at least one of first configuration information from a relay terminal and second configuration information from a network-side device comprises:

in a Layer 2 L2 relay architecture, determining the sidelink configuration for the sidelink relay architecture based on the second configuration information from the network-side device received in a Radio Resource Control RRC procedure or determining the sidelink configuration for the sidelink relay architecture based on the first configuration information from the relay terminal received in a Proximity Communication PC5 RRC procedure, wherein in the L2 relay architecture, the remote terminal determines, for sidelink transmission based on the second configuration information, a sidelink radio bearer SLRB configuration, a service data adaptation protocol SDAP configuration, and a packet data convergence protocol PDCP configuration; and the remote terminal determines, based on the second configuration information or the first configuration information, a radio link control RLC bearer configuration for sidelink transmission.

10. The remote terminal according to claim 9, wherein before the determining a sidelink configuration for the sidelink relay architecture, the remote terminal is in

offline state, and the determining a sidelink configuration for the sidelink relay architecture based on at least one of first configuration information from a relay terminal and second configuration information from a network-side device further comprises:

determining the sidelink configuration for the sidelink relay architecture based on pre-configuration information, wherein the remote terminal is further configured to establish the L2 relay architecture with the relay terminal based on the pre-configuration information.

11. The remote terminal according to claim 9, wherein before the determining a sidelink configuration for the sidelink relay architecture, the remote terminal is in idle state or connected state, and the determining a sidelink configuration for the sidelink relay architecture based on at least one of first configuration information from a relay terminal and second configuration information from a network-side device further comprises:

determining the sidelink configuration for the sidelink relay architecture based on system message received from a camping cell or serving cell or the second configuration information from the network-side device, wherein the remote terminal is further configured to establish an L2 relay architecture with the relay terminal based on the system message or the second configuration information; and in the L2 relay architecture, determining the sidelink configuration for the sidelink relay architecture still based on the system message or determining the sidelink configuration for the sidelink relay architecture based on the second configuration information from the network-side device received in an RRC procedure.

12. The remote terminal according to claim 11, wherein

when establishing an RRC connection to the network-side device, the remote terminal carries home information of the remote terminal, wherein the home information comprises at least one of the following of the remote terminal: camping cell information, a status of obtaining sidelink system information, and an offline status.

13. The remote terminal according to claim 11, wherein when the program or instructions are executed by the processor, following steps are further implemented:

determining whether the system message or the second configuration information used in a first serving cell is applicable to a second serving cell, wherein the first serving cell is a serving cell before the remote terminal establishes an RRC connection, the second serving cell is a serving cell after the RRC connection is established, and the first serving cell is the same as or different from the second serving cell;

or,

transmitting service characteristics of transmission between the remote terminal and the relay terminal to the network-side device, wherein the service characteristics are used by the network-side device to configure radio bearer information for the remote terminal; and receiving the radio bearer information, and establishing a radio bearer based on the radio bearer information, wherein the radio bearer is used by the remote terminal to communicate with the relay terminal;

or,

transmitting service characteristics of transmission between the remote terminal and the relay terminal to the network-side device, wherein the service characteristics are used by the network-side device to configure dedicated resource information for the remote terminal; and receiving the dedicated resource information, and communicating with the relay terminal on a dedicated resource indicated by the dedicated resource information.

14. The remoter terminal according to claim 9, wherein when the program or instructions are executed by the processor , following steps are further implemented:

performing Carrier Aggregation CA duplication transmission for a target service with the relay terminal, wherein the CA duplication transmission for the target service is:

directly configured for the remote terminal;

configured by the network-side device for an SLRB corresponding to the target service in a case that the remote terminal reports quality of service QoS of the target service;

enabling a CA duplication transmission function in a QoS profile used for the target service; or

enabling a CA duplication transmission function in a QoS feature profile of the target service.

15. The remote terminal according to claim 9, wherein multiple RLC bearers used by the remote terminal to transmit duplicate data are configured to different component carrier CC subsets, respectively.