CLAIMS

1. A method for configuring a relay mode for a first User Equipment (UE), performed by the first UE, the method comprising:

receiving first configuration information from a core network device, wherein the first configuration information comprises a mapping relationship between relay modes and Relay Service Codes (RSCs) configured by the core network device, the core network device configures, for the first UE, a relay UE and a second UE, the same mapping relationship between the relay modes and the RSCs, the first configuration information further comprises at least one relay mode configured for the first UE by the core network device, and the first UE, the relay UE and the second UE are devices having a Proximity Service (Prose) capability;

wherein the method further comprises:

receiving first information broadcasted by the relay UE, wherein the first information indicates at least one second relay mode, the first information comprises at least one Relay Service Code (RSC) corresponding to the at least one second relay mode, and the at least one second relay mode comprises a relay mode common to at least one relay mode corresponding to the relay UE and at least one relay mode corresponding to the second UE;

determining (S1306) a first relay mode based on the at least one second relay mode and at least one relay mode configured for the first UE; and

performing (S1310) a communication with the second UE by means of the relay UE based on the first relay mode.

2. The method of claim 1, wherein the at least one relay mode configured for the first UE comprises at least one of the following: a layer 3-based relay mode, or a layer 2-based relay mode.

3. The method of claim 1 or 2, wherein the first configuration information is carried in Prose configuration information; or the first configuration information is carried in UE Route Selection Policy (URSP) configuration information.

4. The method of any of claims 1 to 3, wherein before the receiving the first configuration

information from a core network device, the method further comprises:

sending relay capability information to the core network device, wherein the relay capability information comprises one or more relay modes supported by the first UE.

5. The method of claim 4, wherein the one or more relay modes supported by the first UE comprises at least one of the following: a layer 3-based relay mode, or a layer 2-based relay mode.

6. A method for configuring a relay mode for a relay User Equipment (UE), performed by the relay UE, the method comprising:

receiving first configuration information from a core network device, wherein the first configuration information comprises a mapping relationship between relay modes and Relay Service Codes (RSCs) configured by the core network device, the core network device configures, for a first UE, the relay UE and a second UE, the same mapping relationship between the relay modes and the RSCs, the first configuration information further comprises at least one relay mode configured for the relay UE by the core network device, and the first UE, the relay UE and the second UE are devices having a Proximity Service (Prose) capability;

broadcasting (S1304A) first information to the first UE, wherein the first information indicates at least one second relay mode, the first information comprises at least one Relay Service Code (RSC) corresponding to the at least one second relay mode, and the at least one second relay mode comprises a relay mode common to at least one relay mode corresponding to the relay UE and at least one relay mode corresponding to the second UE; and

relaying (S1310) a communication between the first UE and the second UE based on a first relay mode, wherein the first relay mode is determined by the first UE based on the at least one second relay mode and at least one relay mode configured for the first UE.

7. A first User Equipment (UE), comprising a processor and a memory storing a computer program, wherein the processor, when executing the computer program, is configured to perform the method of any of claims 1 to 5.

8. A relay User Equipment (UE), comprising a processor and a memory storing a computer program, wherein the processor, when executing the computer program, is configured to

perform the method of claim 6.

9. A computer-readable storage medium, having a computer program stored thereon, wherein the computer program is configured to be executed by a processor of a first User Equipment (UE), to implement the method for configuring a relay mode of any of claims 1 to 5.

10. A computer-readable storage medium, having a computer program stored thereon, wherein the computer program is configured to be executed by a processor of a relay User Equipment (UE), to implement the method for configuring a relay mode of claim 6.