CLAIMS

1. A service node updating method for 5th generation communication system, performed by a terminal device and comprising:

receiving configuration information, wherein the configuration information comprises first connectivity configuration information used to maintain both a connection to a source node and a connection to a target node in a service node updating procedure and second connectivity configuration information used to release the connection to the source node and connect to the target node;

processing, by applying the first connectivity configuration information, a layer 2 protocol entity corresponding to a bearer between the terminal device and the source node, to reconfigure the bearer as a source node split bearer; and

processing, by applying the second connectivity configuration information, a layer 2 protocol entity corresponding to the bearer, to reconfigure the source node split bearer as a target node bearer;

wherein the processing, by applying the first connectivity configuration information, a layer 2 protocol entity corresponding to a bearer between the terminal device and the source node comprises:

reconfiguring a Packet Data Convergence Protocol (PDCP) entity of the bearer in a source node cell group of the source node;

keeping a radio link control (RLC) entity of the bearer in the source node cell group unchanged;

keeping a medium access control (MAC) entity of the bearer in the source node cell group unchanged;

establishing an RLC entity of the bearer in a target node cell group of the target node; and

establishing a MAC entity of the bearer in the target node cell group.

2. The method according to claim 1, wherein the processing, by applying the second connectivity configuration information, a layer 2 protocol entity corresponding to the bearer comprises:

reconfiguring a PDCP entity of the bearer in a source node cell group of the source node as a PDCP entity in a target node cell group of the target node;

releasing an RLC entity of the bearer in the source node cell group;

releasing a MAC configuration of the bearer in the source node cell group;

keeping an RLC entity of the bearer in the target node cell group unchanged; and

keeping a MAC entity of the bearer in the target node cell group unchanged.

3. The method according to claim 2, wherein the releasing an RLC entity of the bearer in the source node cell group comprises at least one of the following:

if the RLC entity is an RLC entity of a long term evolution (LTE) type, after reestablishing the RLC entity, releasing the RLC entity; or

if the RLC entity is an RLC entity of a new radio NR type, directly releasing the RLC entity.

4. The method according to any one of claims 1 to 3, wherein the method further comprises:

sending indication information to the source node, wherein the indication information is used to indicate whether the terminal device has applied the first connectivity configuration information.

5. The method according to claim 4, wherein the sending indication information to the source node is specifically:

sending the indication information to the source node by using a PDCP subheader of a data packet.

6. The method according to claim 4, wherein the sending indication information to the source node specifically comprises:

after the processing, by applying the first connectivity configuration information, a layer 2 protocol entity corresponding to a bearer between the terminal device and the source node, to reconfigure the bearer as a source node split bearer, setting the indication information in a PDCP subheader of a data packet; and

sending the indication information to the source node, to indicate that the terminal device has applied the first connectivity configuration information.

7. The method according to claim 1, wherein when the bearer is a bearer in a determined mode, after the processing, by applying the second connectivity configuration information, a layer 2 protocol entity corresponding to the bearer, to reconfigure the source node split bearer as a target node bearer, the method further comprises:

sending a PDCP status report to the target node.

8. A service node updating method for 5th generation communication system, performed by a network-side device, wherein the network-side device comprises a source node in a service node updating procedure, and the method comprises:

sending configuration information, wherein the configuration information comprises first connectivity configuration information used to maintain both a connection to the source node and a connection to a target node in the service node updating procedure and second connectivity configuration information used to release the connection to the source node and connect to the target node;

wherein the first connectivity configuration information is used for a terminal device, when applying the first connectivity configuration information, to process a layer 2 protocol entity corresponding to a bearer between the terminal device and the source node, to reconfigure the bearer as a source node split bearer;

wherein the terminal device, when applying the first connectivity configuration information, processing the layer 2 protocol entity corresponding to the bearer between the terminal device and the source node, comprises:

reconfiguring a Packet Data Convergence Protocol (PDCP) entity of the bearer in a source node cell group of the source node;

keeping a radio link control (RLC) entity of the bearer in the source node cell group unchanged;

keeping a medium access control (MAC) entity of the bearer in the source node cell group unchanged;

establishing an RLC entity of the bearer in a target node cell group of the target node; and

establishing a MAC entity of the bearer in the target node cell group.

9. The method according to claim 8, wherein after the sending configuration information, the method further comprises:

sending, by the source node, at least one of the following to the target node:

a first source node status transfer message, wherein the first source node status transfer message is used to notify a data sending status of the source node to the target node;

a PDCP service data unit (SDU) corresponding to a downlink data forwarding procedure; or

a first PDCP protocol data unit (PDU) corresponding to a source node split bearer, wherein the first PDCP PDU is sent by the source node to a terminal device by using the source node split bearer.

10. The method according to claim 9, wherein before the sending, by the source node, to the target node, the PDCP service data unit (SDU) corresponding to the downlink data forwarding procedure, the method further comprises:

establishing, by the source node, a first tunnel between the source node and the target node, wherein the first tunnel is used to carry the PDCP SDU corresponding to the downlink data forwarding procedure.

11. The method according to claim 9, wherein before the sending, by the source node, to the target node, the first PDCP protocol data unit (PDU) corresponding to the source node split bearer, the method further comprises:

establishing, by the source node, a second tunnel between the source node and the target node, wherein the second tunnel is used to carry the first PDCP PDU corresponding to the source node split bearer.

12. The method according to claim 8, wherein after the sending configuration information, the method further comprises:

receiving, by the source node, indication information, wherein the indication information is used to indicate whether a terminal device has applied the first connectivity configuration information;

and/or,

sending, by the source node, PDCP receiving status information of a terminal device to the target node.

13. The method according to claim 12, wherein after the receiving, by the source node, indication information, the method further comprises:

when the indication information indicates that the terminal device has applied the first connectivity configuration information, sending, by the source node, a second source node status transfer message to the target node, and forwarding data received from a source node split bearer to the target node, wherein the second source node status transfer message is used to notify a data receiving status of the source node to the target node.

14. The method according to claim 12, wherein before the sending, by the source node, PDCP receiving status information of a terminal device to the target node, the method further comprises:

determining, by the source node, the PDCP receiving status information of the terminal device based on at least one of hybrid automatic repeat request (HARQ) information at a MAC layer or

an RLC status report received at an RLC layer.

15. A terminal device, comprising a memory, a processor, 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 according to any one of claims 1 to 7 are implemented.

16. A network-side device, comprising a memory, a processor, 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 according to any one of claims 8 to 14 are implemented.

17. A 5th generation communication system, comprises a source node, a target node and a terminal device in a service node updating procedure, wherein,

the source node sends configuration information to the terminal, wherein the configuration information comprises first connectivity configuration information used to maintain both a connection to the source node and a connection to the target node in the service node updating procedure and second connectivity configuration information used to release the connection to the source node and connect to the target node;

the terminal device receives the configuration information, the terminal processes, by applying the first connectivity configuration information, a layer 2 protocol entity corresponding to a bearer between the terminal device and the source node, to reconfigure the bearer as a source node split bearer; and the terminal processes, by applying the second connectivity configuration information, a layer 2 protocol entity corresponding to the bearer, to reconfigure the source node split bearer as a target node bearer;

wherein the processing, by applying the first connectivity configuration information, a layer 2 protocol entity corresponding to a bearer between the terminal device and the source node comprises:

reconfiguring a Packet Data Convergence Protocol, PDCP, entity of the bearer in a source node cell group of the source node;

keeping a radio link control, RLC, entity of the bearer in the source node cell group unchanged;

keeping a medium access control, MAC, entity of the bearer in the source node cell group unchanged;

establishing an RLC entity of the bearer in a target node cell group of the target node; and

establishing a MAC entity of the bearer in the target node cell group;

the target node receives a first source node status transfer message sent by the source node in the service node updating procedure and a first PDCP PDU received from the source node split bearer;

the target node updates a sending status of a sending PDCP entity in the target node based on the first source node status transfer message and the first PDCP PDU;

the target node receives a second source node status transfer message sent by the source node and a second PDCP PDU received from a target bearer; and

the target node updates a receiving status of a receiving PDCP entity in the target node based on the second source node status transfer message and the second PDCP PDU.