CLAIMS

1. A handover method, comprising:

triggering, by a first access network device, at least one of a terminal device or a second access network device to configure a second protocol stack, the second protocol stack being configured to maintain at least one of: a sequence of data packets between the second access network device and the terminal device, or a security key of the data packets between the second access network device and the terminal device; and

before the first access network device triggers at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack, sequentially processing, by the first access network device, data packets to be processed of the terminal device by use of a first protocol stack.

2. The method of claim 1, wherein the data packets to be processed comprise first data packets, and sequentially processing, by the first access network device, the data packets to be processed of the terminal device by use of the first protocol stack before the first access network device triggers at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack comprises:

before the first access network device triggers at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack, receiving, by the first access network device, the first data packets sent by the terminal device;

decrypting, by the first access network device, the first data packets or a data part in each of the first data packets by use of the first protocol stack; and

sequentially processing, by the first access network device, the decrypted first data packets by use of the first protocol stack.

3. The method of claim 1, wherein the data packets to be processed comprise second data packets, and sequentially processing, by the first access network device, the data

packets to be processed of the terminal device by use of the first protocol stack before the first access network device triggers at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack comprises:

before the first access network device triggers at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack, receiving, by the first access network device, a data part in each of the second data packets sent by a core network device, and

sequentially processing, by the first access network device, the second data packets by use of the first protocol stack; and

the method further comprises:

encrypting, by the first access network device, the sequentially processed second data packets or the data part in each of the second data packets by use of the first protocol stack.

4. The method of claim 1 or 2, wherein the data packets to be processed comprise third data packets, and sequentially processing, by the first access network device, the data packets to be processed of the terminal device by use of the first protocol stack before the first access network device triggers at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack comprises:

before the first access network device triggers at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack, receiving, by the first access network device, the third data packets decrypted by the second access network device by use of the second protocol stack from the second access network device; and

sequentially processing, by the first access network device, the decrypted third data packets.

5. The method of claim 1 or 3, wherein the data packets to be processed comprise fourth data packets, and sequentially processing, by the first access network device,

the data packets to be processed of the terminal device by use of the first protocol stack before the first access network device triggers at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack comprises:

before the first access network device triggers at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack, receiving, by the first access network device, a data part in each of the fourth data packets sent by a core network device, and

sequentially processing, by the first access network device, the fourth data packets by use of the first protocol stack; and

the method further comprises:

sending, by the first access network device, the sequentially processed fourth data packets to the second access network device, such that the second access network device encrypts the sequentially processed fourth data packets or the data part in each of the fourth data packets by use of the second protocol stack.

6. The method of any one of claims 1-5, further comprising:

under the condition that the first access network device determines that no data or data packet of the terminal device is required to be processed by the first access network device, triggering, by the first access network device, at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack.

7. The method of claim 6, wherein triggering, by the first access network device, the terminal device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack under the condition that the first access network device determines that no data or data packet of the terminal device is required to be processed by the first access network device comprises:

under the condition that the first access network device determines that no data or data packet of the terminal device is required to be processed by the first access network device, sending, by the first access network device, first indication information to at least one of the terminal device or the second access network device,

the first indication information being configured to instruct at least one of the terminal device or the second access network device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack.

8. The method of claim 6 or 7, further comprising:

determining, by the first access network device, that no data or data packet of the terminal device is required to be processed by the first access network device,

wherein determining, by the first access network device, that no data or data packet of the terminal device is required to be processed by the first access network device comprises:

receiving, by the first access network device, second indication information sent by a core network device, the second indication information being to indicate that no data or data packet of the terminal device is required to be processed by the first access network device; and

determining, by the first access network device, according to the second indication information that no data or data packet of the terminal device is required to be processed by the first access network device.

9. The method of claim 8, wherein receiving, by the first access network device, the second indication information sent by the core network device comprises:

after the first access network device sends path switch information to the core network device, receiving, by the first access network device, the second indication information sent by the core network device, the path switch information being configured to instruct the core network device to switch an access network device, which is responsible for maintaining the sequence of the data packets of the terminal device, from the first access network device to the second access network device.

10. The method of claim 9, further comprising:

receiving, by the first access network device, third indication information sent by the second access network device, the third indication information being to indicate that the terminal device has completed configuration of the second protocol stack; and

sending, by the first access network device, the path switch information to the

core network device according to the third indication information.

11. The method of any one of claims 1-10, wherein triggering, by the first access network device, the terminal device and the second access network device to configure the second protocol stack comprises:

sending, by the first access network device, first triggering information to the second access network device, the first triggering information being configured to request the second access network device to configure the second protocol stack;

receiving, by the first access network device, response information to the first triggering information from the second access network device; and

sending, by the first access network device, second triggering information to the terminal device according to the response information, the second triggering information being configured to instruct the terminal device to configure the second protocol stack.

12. A terminal device, comprising:

a configuration unit, configured to configure a second protocol stack according to first triggering information sent by a first access network device, the second protocol stack being configured to maintain at least one of: a sequence of data packets between a second access network device and the terminal device, or a security key of the data packets between the second access network device and the terminal device; and

a first sequential processing unit, configured to, before the terminal device receives second triggering information sent by at least one of the first access network device or the second access network device, sequentially process data packets or data to be processed of the terminal device by use of a first protocol stack, the second triggering information being configured to trigger the terminal device to maintain the sequence of the data packets of the terminal device by use of the second protocol stack.

13. The terminal device of claim 12, wherein the data to be processed comprises first data, and the first sequential processing unit is specifically configured to:

sequentially process the first data by use of the first protocol stack; and

the terminal device further comprises:

a first encryption unit, configured to encrypt the sequentially processed first data or data packets comprising the first data by use of the first protocol stack, and

a first sending unit, configured to send the encrypted data packets comprising the first data to the first access network device.

14. The terminal device of claim 12, wherein the data packets to be processed comprise first data packets, and the first sequential processing unit is specifically configured to:

before the terminal device receives the second triggering information sent by at least one of the first access network device or the second access network device, receive the first data packets sent by the first access network device,

decrypt the first data packets or a data part in each of the first data packets by use of the first protocol stack, and

sequentially process the decrypted first data packets by use of the first protocol stack.

15. The terminal device of claim 12 or 13, wherein the data to be processed comprises second data, and the first sequential processing unit is specifically configured to:

sequentially process the second data by use of the first protocol stack; and

the terminal device further comprises:

a second encryption unit, configured to encrypt the sequentially processed second data or data packets comprising the second data by use of the second protocol stack, and

a second sending unit, configured to send the encrypted data packets comprising the second data to the second network device.

16. The terminal device of claim 12 or 14, wherein the data packets to be processed comprise second data packets, and the first sequential processing unit is configured to:

receive the second data packets sent by the second network device,

decrypt the second data packets or a data part in each of the second data packets by use of the second protocol stack, and

sequentially process the decrypted second data packets by use of the first protocol stack.

17. The terminal device of any one of claims 12-16, further comprising:

a first receiving unit, configured to receive the second triggering information sent by at least one of the first access network device or the second access network device; and

a second sequential processing unit, configured to maintain the sequence of the data packets of the terminal device by use of the second protocol stack according to the second triggering information.

18. The terminal device of claim 17, wherein the second triggering information is further configured to instruct the terminal device to release the first protocol stack, and the terminal device further comprises:

a release unit, configured to release the first protocol stack according to the second triggering information.

19. The terminal device of any one of claims 12-18, wherein the second triggering information is any one of Radio Resource Control (RRC) signaling, Medium Access Control (MAC) signaling, Downlink Control Information (DCI) or a bit in a data packet.

20. The terminal device of any one of claims 12-19, wherein the first access network device is a source access network device, and the second access network device is a target access network device; or the first access network device is a primary access network device in a multi-connection scenario, and the second access network device is a secondary access network device in the multi-connection scenario.