

## CLAIMS

1. A wireless communication method, comprising:

processing a transmitted first data packet by using a first key through a first protocol stack; and

processing a transmitted second data packet by using a second key through a second protocol stack,

wherein the first protocol stack and the second protocol stack share at least one protocol layer,

wherein the first key as well as the second key and the first protocol stack as well as the second protocol stack are concurrently used, and time for processing the first data packet sent to the receiver by using the first key through the first protocol stack and time for processing the second data packet sent to the receiver by using the second key through the second protocol stack at least partially overlap.

2. The method of claim 1, wherein a protocol layer which is not shared by the first protocol stack and the second protocol stack comprises a Radio Link Control (RLC) layer.

3. The method of any one of claims 1 to 2, further comprising:

receiving or sending a first message, wherein the first message is configured to trigger processing the second data packet by using the second key through the second protocol stack.

4. The method of any one of claims 1 to 3, wherein the first key is a key before updating, and the second key is an updated key.

5. The method of any one of claims 1 to 4, further comprising:

receiving or sending a second message, wherein the second message is configured to indicate that the data packet is no longer processed by using the first key through the first protocol stack.

6. The method of any one of claims 1 to 5, wherein a data packet sender is a terminal device, and a data packet receiver is a base station; or,

the data packet sender is a base station, and the data packet receiver is a terminal device.

7. The method of claim 6, wherein the first data packet is transmitted between the terminal device and a first base station through the first protocol stack, and the second data packet is transmitted between the terminal device and a second base station through the second protocol stack.

8. The method of any one of claims 1 to 7, wherein the processing comprises at least one of encryption or integrity protection processing.

9. The method of any one of claims 1 to 8, wherein the processing is implemented in a Packet Data Convergence Protocol (PDCP) layer.

10. The method of claim 1, wherein a data packet sender is a terminal device, and a data packet receiver is one or more base stations; or the data packet sender is one or more base stations, and the data packet receiver is a terminal device, and

wherein the first key and the second key are used for performing encryption and/or integrity protection operations, or decryption and/or integrity verification on the data packets in a Packet Data Convergence Protocol (PDCP) layer, the first key and the second key being for different data packets respectively.

~~10. The method of claim 6, wherein the first key as well as the second key and the first protocol stack as well as the second protocol stack are concurrently used, and time for processing the first data packet sent to the receiver by using the first key through the first protocol stack and time for processing the second data packet sent to the receiver by using the second key through the second protocol stack at least partially overlap.~~

11. A communication device, configured to execute the method of any one of claims 1 to 10.

12. A chip comprising a processor, configured to call and run a computer program in a memory to enable a device installed with the chip to execute the method of any one of claims 1 to 10.

13. A computer-readable storage medium having stored thereon computer program, the computer program enabling a computer to execute the method of any one of claims 1 to 10.