CLAIMS

1. A communication method, comprising:

receiving, by a target access point (AP) multi-link device (MLD), first downlink data from a current AP MLD;

encrypting, by the target AP MLD, the first downlink data by using a key, to obtain second downlink data, wherein the key is a key negotiated by the target AP MLD and a non-access point non-AP MLD, and the target AP MLD is an AP MLD of the non-AP MLD after a basic service set (BSS) transition; and

sending, by the target AP MLD, the second downlink data to the non-AP MLD.

2. The method according to claim 1, wherein the first downlink data comprises a sequence number (SN) and a packet sequence number assigned (PN), wherein the SN and the PN are assigned by current AP MLD.

3. The method according to claim 2, wherein the target MLD and the current AP MLD share the SN and the PN.

4. The method according to claim 2, further comprising:

receiving, by the target AP MLD, context information of the non-AP MLD from the current AP MLD, wherein the context information comprises a block acknowledgement protocol of a traffic identifier (TID).

5. The method according to claim 4, wherein the context information comprises a window start position of a transmit buffer of the TID.

6. The method according to claim 5, wherein the context information comprises an uplink replay counter.

7. The method according to claim 1, wherein a first transmission link exists between the non-AP MLD and the current AP MLD, and the method further comprises:

receiving, by the target AP MLD, a first request, wherein the first request is used to request to establish a second transmission link between the non-AP MLD and the target AP MLD; and

establishing, by the target AP MLD, the second transmission link with the non-AP MLD.

8. The method according to claim 7, wherein the first request comprises indication information for enabling dual-link transmission of the non-AP MLD, and the dual links comprise the first transmission link and the second transmission link.

9. The method according to any one of claims 1 to 8, further comprising:

sending, by the target AP MLD, a second request to the current AP MLD, wherein the second request is used to request to enable the dual-link transmission of the non-AP MLD.

10. The method according to any one of claims 1 to 9, further comprising:

receiving, by the target AP MLD, a third request, wherein the third request is used to request to trigger path switching of the non-AP MLD; and

sending, by the target AP MLD, a fourth request to a distributed system DS, wherein the fourth request is used to request the DS to update a stored mapping relationship between the non-AP MLD and the current AP MLD to a mapping relationship between the non-AP MLD and the target AP MLD.

11. The method according to any one of claims 7 to 10, wherein one or both of the first request and the third request are from the non-AP MLD, and one or both of the first request and the third request are transmitted through an air interface between the non-AP MLD and the target AP MLD or are transmitted through the current AP MLD and the DS.

12. The method according to claim 11, wherein the first request does not comprise operating channel information (OCI) when the first request is transmitted through the current AP MLD and the DS.

13. The method according to any one of claims 1 to 12, wherein after a transmission path of the non-AP MLD is switched from the first transmission path to the second transmission path, the non-AP MLD and the target AP MLD encrypt/decrypt uplink data and/or downlink data by using the key negotiated by the non-AP MLD and the target AP MLD.

14. A communication apparatus, comprising:

a memory, configured to store program instructions; and

a processor, configured to execute the program instructions, so that the communication apparatus performs the method according to any one of claims 1 to 13.

15. An apparatus, comprising a processor and an interface circuit, wherein the interface circuit is configured to: receive a signal from an apparatus other than the apparatus and transmit the signal to the processor, or send a signal from the processor to an apparatus other than the apparatus, and the processor enables, by using a logic circuit or by executing code instructions, the apparatus to implement the method according to any one of claims 1 to 13.

16. A computer-readable storage medium, wherein the computer-readable storage medium stores instructions, and when the instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 13.

17. A computer program product, comprising a computer program or instructions, wherein when the computer program or the instructions are run by an apparatus, the method according to any one of claims 1 to 13 is performed.

18. A chip, comprising a processor, wherein the processor is coupled to a memory and is configured to execute a computer program or instructions stored in the memory, so that a

communication apparatus comprising the chip performs the method according to any one of claims 1 to 13.