CLAIMS

What is claimed is:

1. A multi-link communication setup method, comprising:

sending, by a first station of a non-access point multi-link device non-AP MLD, a first association request frame on a first link, wherein the first association request frame comprises a multi-link element, the multi-link element comprises indication information, and the indication information indicates a second link; and

receiving, by the first station of the non-AP MLD, a first association response frame on the first link, wherein the first association response frame comprises a first status code field and a multi-link element, the multi-link element of the first association response frame comprises a second status code field, a value of the first status code field is not 0, to indicate that the first link is not accepted, and the second status code field is set to a first value that is not 0, to indicate that a cause why the second link is not accepted is that the first link is not accepted.

2. A multi-link communication setup method, comprising:

receiving, by a first access point of an access point multi-link device AP MLD, a first association request frame on a first link, wherein the first association request frame comprises a multi-link element, the multi-link element comprises indication information, and the indication information indicates a second link; and

sending, by the first access point of the AP MLD, a first association response frame on the first link, wherein the first association response frame comprises a first status code field and a multi-link element, the multi-link element of the first association response frame comprises a second status code field, a value of the first status code field is not 0, to indicate that the first link is not accepted, and the second status code field is set to a first value that is not 0, to indicate that a cause why the second link is not accepted is that the first link is not accepted.

3. The method according to claim 1 or 2, wherein the first status code field is a status code field located outside the multi-link element of the first association response frame.

4. The method according to any one of claims 1 to 3, wherein the second status code field is a status code field comprised in a STA profile subfield of a per-STA profile subelement.

5. The method according to claim 1, wherein after the receiving, by the first station of the non-AP MLD, a first association response frame on the first link, the method further comprises:

sending, by a second station of the non-AP MLD, a second association request frame on the second link; and

receiving, by the second station of the non-AP MLD, a second association response frame on the second link.

6. The method according to claim 2, wherein after the sending, by the first access point of the AP MLD, a first association response frame on the first link, the method further comprises:

receiving, by a second access point of the AP MLD, a second association request frame on the second link; and

sending, by the second access point of the AP MLD, a second association response frame on the second link.

7. A multi-link communication setup method, comprising:

sending, by a first station of a non-access point multi-link device non-AP MLD, a first association request frame on a first link, wherein the first association request frame comprises a multi-link element, the multi-link element comprises indication information, and the indication information indicates a second link; and

receiving, by the first station of the non-AP MLD, a first association response frame on the first link, wherein the first association response frame comprises a first status code field and a multi-link element, the multi-link element of the first association response frame comprises a second status code field, and a value of the first status code field is not 0 and a value of the second status code field is 0, to jointly indicate that a cause why the second link is not accepted is that the first link is not accepted.

8. A multi-link communication setup method, comprising:

receiving, by a first access point of an access point multi-link device AP MLD, a first association request frame on a first link, wherein the first association request frame comprises a multi-link element, the multi-link element comprises indication information, and the indication information indicates a second link; and

sending, by the first access point of the AP MLD, a first association response frame on the first link, wherein the first association response frame comprises a first status code field and a multi-link element, the multi-link element of the first association response frame comprises a second status code field, and a value of the first status code field is not 0 and a value of the second

status code field is 0, to jointly indicate that a cause why the second link is not accepted is that the first link is not accepted.

9. The method according to claim 7 or 8, wherein the first status code field is a status code field located outside the multi-link element of the first association response frame.

10. The method according to any one of claims 7 to 9, wherein the second status code field is a status code field comprised in a STA profile subfield of a per-STA profile subelement.

11. The method according to claim 7, wherein after the receiving, by the first station of the non-AP MLD, a first association response frame on the first link, the method further comprises:

sending, by a second station of the non-AP MLD, a second association request frame on the second link; and

receiving, by the second station of the non-AP MLD, a second association response frame on the second link.

12. The method according to claim 8, wherein after the sending, by the first access point of the AP MLD, a first association response frame on the first link, the method further comprises:

receiving, by a second access point of the AP MLD, a second association request frame on the second link; and

sending, by the second access point of the AP MLD, a second association response frame on the second link.

13. A communication apparatus, wherein the communication apparatus comprises a processing unit and a transceiver unit, and the processing unit is configured to control the transceiver unit to:

send a first association request frame on a first link, wherein the first association request frame comprises a multi-link element, the multi-link element comprises indication information, and the indication information indicates a second link; and

receive a first association response frame on the first link, wherein the first association response frame comprises a first status code field and a multi-link element, the multi-link element of the first association response frame comprises a second status code field, a value of the first status code field is not 0, to indicate that the first link is not accepted, and the second status code field is set to a first value that is not 0, to indicate that a cause why the second link is not accepted is that the first link is not accepted.

14. The communication apparatus according to claim 13, wherein the transceiver unit is further configured to:

send a second association request frame on the second link; and

receive a second association response frame on the second link.

15. A communication apparatus, wherein the communication apparatus comprises a processing unit and a transceiver unit, and the processing unit is configured to control the transceiver unit to:

receive a first association request frame on a first link, wherein the first association request frame comprises a multi-link element, the multi-link element comprises indication information, and the indication information indicates a second link; and

send a first association response frame on the first link, wherein the first association response frame comprises a first status code field and a multi-link element, the multi-link element of the first association response frame comprises a second status code field, a value of the first status code field is not 0, to indicate that the first link is not accepted, and the second status code field is set to a first value that is not 0, to indicate that a cause why the second link is not accepted is that the first link is not accepted.

16. The communication apparatus according to claim 15, wherein the transceiver unit is further configured to:

receive a second association request frame on the second link; and

send a second association response frame on the second link.

17. A communication apparatus, wherein the communication apparatus comprises a processing unit and a transceiver unit, and the processing unit is configured to control the transceiver unit to:

send a first association request frame on a first link, wherein the first association request frame comprises a multi-link element, the multi-link element comprises indication information, and the indication information indicates a second link; and

receive a first association response frame on the first link, wherein the first association response frame comprises a first status code field and a multi-link element, the multi-link element of the first association response frame comprises a second status code field, and a value of the first status code field is not 0 and a value of the second status code field is 0, to jointly indicate that a

cause why the second link is not accepted is that the first link is not accepted.

18. The communication apparatus according to claim 17, wherein the transceiver unit is further configured to:

send a second association request frame on the second link; and

receive a second association response frame on the second link.

19. A communication apparatus, wherein the communication apparatus comprises a processing unit and a transceiver unit, and the processing unit is configured to control the transceiver unit to:

receive a first association request frame on a first link, wherein the first association request frame comprises a multi-link element, the multi-link element comprises indication information, and the indication information indicates a second link; and

send a first association response frame on the first link, wherein the first association response frame comprises a first status code field and a multi-link element, the multi-link element of the first association response frame comprises a second status code field, and a value of the first status code field is not 0 and a value of the second status code field is 0, to jointly indicate that a cause why the second link is not accepted is that the first link is not accepted.

20. The communication apparatus according to claim 19, wherein the transceiver unit is further configured to:

receive a second association request frame on the second link; and

send a second association response frame on the second link.

21. A communication apparatus, comprising a processor and a memory, wherein

the memory is configured to store instructions; and

the processor is configured to execute the instructions, to perform the method according to any one of claims 1 to 12.

22. A communication apparatus, comprising a logic circuit and an interface, wherein the logic circuit is coupled to the interface; and

the interface is configured to input and/or output code instructions, and the logic circuit is configured to execute the code instructions, to perform the method according to any one of claims 1 to 12.

23. A computer-readable storage medium, wherein the computer-readable storage medium is

configured to store a computer program, and when the computer program is executed, the method according to any one of claims 1 to 12 is performed.