

CLAIMS

What is claimed is:

1. A multi-link communication method, comprising:

sending, by a first station in a station multi-link device, STA MLD, an information frame on a first link corresponding to the first station to a first access point in an access point multi-link device, AP MLD, wherein the information frame indicates a second link corresponding to a second station in the STA MLD, wherein the second station loses channel state information on the second link due to changing from a sleep state to an awake state and has uplink service to send on the second link;

receiving, by the second station, a synchronization frame from a second access point in the AP MLD on the second link, wherein the synchronization frame is used to assist the second station in sending the uplink service; and

sending, by the second station, the uplink service on the second link based on the synchronization frame.

2. A multi-link communication method, comprising:

sending, by a first station in a station multi-link device, STA MLD, an information frame on a first link corresponding to the first station to a first access point in an access point multi-link device, AP MLD, wherein the information frame indicates a second link corresponding to a second station in the STA MLD to which the STA MLD performs switching for sending data, wherein the second station loses channel state information on the second link and has uplink service to send on the second link;

receiving, by the second station, a synchronization frame from a second access point in the AP MLD on the second link, wherein the synchronization frame is used to assist the second station in sending the uplink service; and

sending, by the second station, the uplink service on the second link based on the synchronization frame.

3. The method according to claim 1 or claim 2, wherein the synchronization frame is a trigger frame.

4. The method according to any one of claims 1 to 3, wherein the first station and the second station do not support simultaneous transmitting and receiving.

5. The method according to any one of claims 1 to 3, the STA MLD is a single radio station.

6. The method according to any one of claims 1 to 3, wherein the STA MLD is in an energy saving mode.
7. The method according to any one of claims 1 to 3, wherein the information frame comprises a link identifier of the second link.
8. A station multi-link device, STA MLD, comprising a first station and a second station,
wherein the first station in the station is configured to send an information frame on a first link corresponding to the first station to a first access point in an access point multi-link device, AP MLD,
wherein the information frame indicates a second link corresponding to the second station,
wherein the second station loses channel state information on the second link due to changing from a sleep state to an awake state and has uplink service to send on the second link;
wherein the second station is configured to, a synchronization frame from a second access point in the AP MLD on the second link,
wherein the synchronization frame is used to assist the second station in sending the uplink service;
and
the second station is further configured to send the uplink service on the second link based on the synchronization frame.
9. A station multi-link device, STA MLD, comprising a first station and a second station,
wherein the first station in the station is configured to send an information frame on a first link corresponding to the first station to a first access point in an access point multi-link device, AP MLD,
wherein the information frame indicates a second link corresponding to the second station to which the STA MLD performs switching for sending data,
wherein the second station loses channel state information on the second link and has uplink service to send on the second link;
wherein the second station is configured to, a synchronization frame from a second access point in the AP MLD on the second link,
wherein the synchronization frame is used to assist the second station in sending the uplink service;
and
the second station is further configured to send the uplink service on the second link based on the synchronization frame.

10. The multi-link device according to claim 8 or 9, wherein the synchronization frame is a trigger frame.
11. The multi-link device according to any one of claims 8 to 10, wherein the first station and the second station do not support simultaneous transmitting and receiving.
12. The multi-link device according to any one of claims 8 to 10, wherein the station multi-link device is a single radio station.
13. The multi-link device according to any one of claims 8 to 10, wherein the STA MLD is in an energy saving mode.
14. The multi-link device according to any one of claims 8 to 10, wherein the information frame comprises a link identifier of the second link.
15. A computer-readable storage medium, configured to store a computer program, wherein the computer program comprises instructions used to perform the method according to any one of claims 1 to 7.
16. A computer program, wherein the computer program comprises instructions used for the method according to anyone of claims 1 to 7.