CLAIMS

1. A method for transmitting data, comprising:

receiving, by a station, delay parameter information of a plurality of communication links, wherein the delay parameter information indicates an access category (AC) access delay condition of a time sensitive network (TSN) data type under each communication link, wherein the delay parameter information comprises at least one of link ID; and

transmitting, based on the delay parameter information, TSN data to be transmitted on a first communication link in the plurality of communication links, wherein the first communication link satisfies a TSN data transmission/reception delay requirement.

2. The method as claimed in claim 1, wherein the delay parameter information comprises AC access delay information of the TSN data type, and the method further comprises:

selecting a communication link with a smallest AC access delay value of the TSN data type from the plurality of communication links as the first communication link.

3. The method as claimed in claim 1, wherein the delay parameter information comprises basic service set (BSS) load information and AC access delay information of the TSN data type, and the method further comprises:

selecting a communication link with an AC access delay value of the TSN data type lower than a preset delay threshold and a BSS load value lower than a preset load threshold from the plurality of communication links as the first communication link.

4. The method as claimed in claim 3, wherein selecting the communication link with the AC access delay value of the TSN data type lower than the preset delay threshold and the BSS load value lower than the preset load threshold from the plurality of communication links as the first communication link comprises:

in response to the BSS load value of each of at least two communication links being lower than the preset load threshold and the AC access delay value of the TSN data type of each of at least two communication links being lower than the preset delay threshold, selecting a

communication link with a smallest AC access delay value of the TSN data type from the at least two communication links as the first communication link.

5. The method as claimed in claim 3, wherein selecting the communication link with the AC access delay value of the TSN data type lower than the preset delay threshold and the BSS load value lower than the preset load threshold from the plurality of communication links as the first communication link comprises:

in response to the BSS load value of each of at least two communication links being lower than the preset load threshold and the AC access delay value of the TSN data type of each of the at least two communication links being lower than the preset delay threshold, selecting a communication link with a smallest BSS load value from the at least two communication links as the first communication link.

6. The method as claimed in any one of claims 1 to 5, wherein receiving the delay parameter information of the plurality of communication links comprises:

receiving the delay parameter information of the plurality of communication links broadcasted through a beacon frame;

wherein the beacon frame comprises a plurality of link identification fields, and different link identification fields are configured to indicate different communication links among the plurality of communication links.

7. The method as claimed in claim 6, wherein the different link identification fields are further configured to indicate communication frequency bands to which the different communication links belong.

8. The method as claimed in claim 7, wherein the link identification field comprises:

a first field configured to indicate a communication link identifier; and

a second field configured to indicate a communication frequency band identifier of the communication link identifier.

9. The method as claimed in any one of claims 6 to 8, wherein the beacon frame comprises an AC access delay field, and the AC access delay field comprises:

a third field configured to indicate an AC access delay of the TSN data type.

10. The method as claimed in claim 2 or 3, wherein the delay parameter information further comprises:

BSS access delay information configured to indicate to monitor a next beacon frame that arrives.

11. A method for receiving data, comprising:

broadcasting delay parameter information of a plurality of communication links to a station, wherein the delay parameter information indicates an access category (AC) access delay condition of a time sensitive network (TSN) data type under each of the plurality of communication links, wherein the delay parameter information comprises at least one of link ID; and

receiving, on a first communication link of the plurality of communication links, TSN data that are transmitted based on the delay parameter information.

12. The method as claimed in claim 11, wherein the delay parameter information comprises AC access delay information;

or, the delay parameter information comprises AC access delay information and basic service set (BSS) access delay information;

or, the delay parameter information comprises BSS load information and AC access delay information;

or, the delay parameter information comprises BSS load information, AC access delay information and BSS access delay information.

13. The method as claimed in claim 11 or 12, wherein broadcasting the delay parameter information of the plurality of communication links comprises:

broadcasting the delay parameter information of the plurality of communication links

through a beacon frame.

14. The method as claimed in claim 13, wherein the beacon frame comprises a plurality of link identification fields, and different link identification fields are configured to indicate different communication links among the plurality of communication links, and the different link identification fields are further configured to indicate communication frequency bands to which the different communication links belong.

15. The method as claimed in claim 14, wherein the link identification field comprises:

a first field configured to indicate a communication link identifier; and

a second field configured to indicate a communication frequency band identifier of the communication link identifier.

16. The method as claimed in claim 14 or 15, wherein the beacon frame comprises an AC access delay field, and the AC access delay field comprises:

a third field configured to indicate an AC access delay of the TSN data type.

17. The method as claimed in any one of claims 11 to 16, wherein the plurality of communication links comprises at least one of:

a plurality of communication links in a same communication frequency band;

or,

a plurality of communication links in different communication frequency bands.

18. The method as claimed in any one of claims 11 to 17, wherein broadcasting (S12) the delay parameter information of the plurality of communication links comprises:

broadcasting the delay parameter information of the plurality of communication links in each communication link that is established with a station,

or, in response to establishing at least one communication link with a station, broadcasting the delay parameter information of the plurality of communication links in one communication link that is established with the station.

19. A device for transmitting data, comprising:

a processor; and

a memory for storing instructions executable by the processor;

wherein the processor is configured to execute the instructions to perform the method for transmitting data as claimed in any one of claims 1 to 10 or the method for receiving data as claimed in any one of claims 11 to 18.

20. A computer storage medium having stored therein instructions that, when executed by a processor, causes the processor to perform the method for transmitting data as claimed in any one of claims 1 to 10 or the method for receiving data as claimed in any one of claims 11 to 18.