CLAIMS

[Claim 1]

A communication apparatus comprising:

an establishment means for establishing connections with another communication apparatus via a plurality of links; and

a setting means for mapping traffic identifiers (TIDs) to the plurality of links,

wherein when a first link of the plurality of links is removed in a state where the communication apparatus and the another communication apparatus are connected via the plurality of links by the establishment means and the TID is mapped to the plurality of links by the setting means, a first TID is mapped to all of the plurality of links except for the first link in a case where the first TID mapped to the first link by the setting means is not mapped to the plurality of links except for the first link.

[Claim 2]

The communication apparatus according to Claim 1,

wherein the communication apparatus includes a default mode for mapping all types of TID to the plurality of links, and

wherein processing of mapping the first TID to all of the plurality of links except for the first link when the first link is removed is executed in a case where the communication apparatus is not operated in the default mode.

[Claim 3]

The communication apparatus according to Claim 1 or 2, wherein each of the all types of TID is mapped to at least one of the plurality of links.

[Claim 4]

The communication apparatus according to any one of Claims 1 to 3, wherein when a first link of the plurality of links is removed in a state where the communication apparatus and the another communication apparatus are connected via the plurality of links by the establishment means and the TID is mapped to the plurality of links by the

setting means, the all types of TID are mapped to all of the plurality of links except for the first link in a case where the first TID mapped to the first link by the setting means is not mapped to the plurality of links except for the first link.

[Claim 5]

The communication apparatus according to any one of Claims 1 to 4, wherein the communication apparatus is configured to map the TID to all of the plurality of links except for the first link in response to reception of a frame including a request to delete the first link from the another communication apparatus.

[Claim 6]

The communication apparatus according to Claim 5, wherein information for deleting the first link and information about a TID to be mapped to all of the plurality of links except for the first link are stored in the frame.

[Claim 7]

The communication apparatus according to Claim 6, wherein the information about the TID to be mapped to all of the plurality of links except for the first link is stored in a TID-To-Link Mapping element of the frame.

[Claim 8]

The communication apparatus according to Claim 7, wherein mapping information about links in the TID-To-Link Mapping element and the TID is updated in response to the processing of mapping the first TID to all of the plurality of links except for the first link when the first link is removed.

[Claim 9]

The communication apparatus according to any one of Claims 5 to 8, wherein the frame is a management frame or action frame compliant with an Institute of Electrical and Electronics Engineers (IEEE) 802.11 standard.

[Claim 10]

A communication method for a communication apparatus, comprising:

establishing connections with another communication apparatus via a plurality of links; and

mapping TIDs to the plurality of links,

wherein when a first link of the plurality of links is removed in a state where the communication apparatus and the another communication apparatus are connected via the plurality of links in the establishing and the TID is mapped to the plurality of links in the setting, a first TID is mapped to all of the plurality of links except for the first link in a case where the first TID mapped to the first link in the setting is not mapped to the plurality of links except for the first link.

[Claim 11]

A program for causing a computer to function as the means of the communication apparatus according to any one of Claims 1 to 9.