### IEEE P802.11 Wireless LANs

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| 11be D2.0 CR for reducing size of ML Traffic Indication |
| Date: 2022-08-03 |
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Abstract

This submission proposes resolutions for the following CIDs:

10124

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Make the text of the AID field clearer

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGbe D2.0 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe D2.0 Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGbe Editor: Editing instructions preceded by “TGbe Editor” are instructions to the TGbe editor to modify existing material in the TGbe draft. As a result of adopting the changes, the TGbe editor will execute the instructions rather than copy them to the TGbe Draft.***

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| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 10124 | Xiangxin Gu | 35.3.7.1.3 | 428.25 | From AP MLD point of view, ReNegothiation of TID-to-link mapping with a non-AP MLD may cause overload of Multi-Link Traffic Inidcation element. It's better to assign a new AID to the non-AP MLD (if needed) along with the ReNegotiation of TID-to-link mapping. | Define a mechanism to a assign a new AID to the non-AP MLD along with the ReNegotiation of TID-to-link. | **Revised:**Agree with the commenter in principle.Propose to add AID element as an optional field in TID-To-Link Mapping negotiation frames.Tgbe editor: please implement changes as shown in this document tagged as 10124 |

**Propose:**

*TGbe editor: Change 9.6.35.2 and 9.6.35.3 and 9.6.35.4 as follows (track changes on):*

* + - 1. **TID-To-Link Mapping Request frame format**

An MLD uses the TID-to-link Mapping Request frame to negotiate a TID-to-link mapping for setup links with a peer MLD. The Action field of the TID-to-link Mapping Request frame contains the information shown in [Table 9-623d (TID-To-Link Mapping Request frame Action field format)](#bookmark230).

**Table 9-623d—TID-To-Link Mapping Request frame Action field format**

|  |  |
| --- | --- |
| **Order** | **Information** |
| 1 | Category |
| 2 | Protected EHT Action |
| 3 | Dialog Token |
| 4 | TID-To-Link Mapping (see [9.4.2.314 (TID-To-Link Mapping](#bookmark193) [element)](#bookmark193)) |
| 5 | (10124)AID (see 9.4.2.163 (AID element)) (optional) |

The Category field is defined in [9.4.1.11 (Action field)](#bookmark81).

The Protected EHT Action field is defined in [9.6.35.1 (Protected EHT Action field)](#bookmark228).

The Dialog Token field is a set to a nonzero value chosen by the STA sending the TID-To-Link Mapping Request frame to identify the request/response transaction.

The TID-To-Link Mapping field contains one or two TID-To-Link Mapping elements as specified in

[9.4.2.314 (TID-To-Link Mapping element)](#bookmark193). When it contains two TID-To-Link Mapping elements, the Direction subfield in one of the TID-To-Link Mapping elements is set to 0 and the Direction subfield in the other of the TID-To-Link Mapping elements is set to 1.

(10124) The AID field exsits and contains an AID element with the AID of the non-AP MLD assigned by the associated AP MLD if the frame is sent by an AP affiliated with the AP MLD. Otherwise the AID field is does not exist.

* + - 1. **TID-To-Link Mapping Response frame format**

The TID-To-Link Mapping Response frame is sent by a STA affiliated with an MLD in response to a TID- To-Link Mapping Request frame to accept or reject a proposed TID-to-link mapping, or sent by a STA affil- iated with an MLD to suggest a preferred TID-to-link mapping. The Action field of the TID-To-Link Map- ping Response frame contains the information shown in [Table 9-623e (TID-To-Link Mapping Response](#bookmark231) [frame Action field format)](#bookmark231).

**Table 9-623e—TID-To-Link Mapping Response frame Action field format**

|  |  |
| --- | --- |
| **Order** | **Information** |
| 1 | Category |
| 2 | Protected EHT Action |
| 3 | Dialog Token |
| 4 | Status Code |
| 5 | TID-To-Link Mapping (see [9.4.2.314 (TID-To-Link Mapping](#bookmark193) [element)](#bookmark193)) |
| 6 | (10124)AID (see 9.4.2.163 (AID element)) (optional) |

The Category field is defined in [9.4.1.11 (Action field)](#bookmark81).

The Protected EHT Action field is defined in [9.6.35.1 (Protected EHT Action field)](#bookmark228).

When the TID-To-Link Mapping Response frame is transmitted as a response to a TID-To-Link Mapping Request frame, the Dialog Token field is the value in the corresponding TID-To-Link Mapping Request frame. When the TID-To-Link Mapping Response frame is transmitted as an unsolicited response, then the Dialog token is set to 0.

The Status Code is defined in [9.4.1.9 (Status Code field)](#bookmark79).

The TID-To-Link Mapping field contains zero, one, or two TID-To-Link Mapping elements as specified in

[9.4.2.314 (TID-To-Link Mapping element)](#bookmark193) in order to suggest a preferred mapping. It contains one or two TID-To-Link Mapping elements if the Status Code is set to 134 (PREFERRED\_TID\_TO\_LINK\_MAP- PING\_SUGGESTED). Otherwise, it does not contain a TID-To-Link Mapping element. When it contains two TID-To-Link Mapping elements, the Direction subfield in one of the TID-To-Link Mapping elements is set to 0 (Downlink) and the Direction subfield in the other of the TID-To-Link Mapping elements is set to 1 (Uplink).

(10124) The AID field exsits and contains an AID element with the AID of the non-AP MLD assigned by the associated AP MLD if the frame is sent by an AP affiliated with the AP MLD. Otherwise the AID field does not exist.

* + - 1. **TID-To-Link Mapping Teardown frame format**

The TID-to-link Mapping Teardown frame is sent by a STA affiliated with an MLD to request the teardown of an existing TID-to-link mapping that have been negotiated with the peer MLD. The Action field of the TID-to-link Mapping Teardown frame contains the information shown in [Table 9-623f (TID-To-Link Map-](#bookmark232) [ping Teardown frame Action field format)](#bookmark232).

**Table 9-623f—TID-To-Link Mapping Teardown frame Action field format**

|  |  |
| --- | --- |
| **Order** | **Information** |
| 0 | Category |
| 1 | Protected EHT Action |
| 2 | (10124)AID (see 9.4.2.163 (AID element)) (optional) |

The Category field is defined in [9.4.1.11 (Action field)](#bookmark81).

The Protected EHT Action field is defined in [9.6.35.1 (Protected EHT Action field)](#bookmark228).

(10124) The AID field exsits and contains an AID element with the AID of the non-AP MLD assigned by the associated AP MLD if the frame is sent by an AP affiliated with the AP MLD. Otherwise the AID field does not exist.

*TGbe editor: Change 9.4.2.163 as follows (track changes on):*

**9.4.2.163 AID element**

The AID element includes the AID assigned by an AP or an AP MLD during association (see 11.3 (STA authenticationAuthentication and association)) (10124) or TID-To-Link mapping negotiation (see 35.3.7.1 (TID-to-link mapping)) that represents the 16-bit ID of a STA or a non-AP MLD, respectively. The format of the AID element is shown in Figure 9-619 (AID element format).

*TGbe editor: Insert the following paragraph between 12th and 13th paragraph of 35.3.7.1.3 as follows (track changes on):*

* + - * 1. **Negotiation of TID-to-link mapping**

…….

(10124)The AP MLD may change the non-AP MLD’s AID by a new AID included in the AID element in sent TID-To-Link Mapping Request or TID-To-Link Mapping Response or TID-To-Link Mapping Teardown frame. The non-AP MLD updating TID-to-link mapping information according to the negotiated TID-to-link mapping, shall update its AID with the AID carried in AID element in TID-To-Link Mapping Request or TID-To-Link Mapping Response or TID-To-Link Mapping Teardown frame from the AP MLD.

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