IEEE P802.11
Wireless LANs

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| CC36 CR for Traffic Indication in Multiple BSSID Set |
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Abstract

This submission proposes resolutions of comments received from TGbe comment collection CC36 based on TGbe D1.2.

* 6254 (1 CID)

Revisions:

* Rev 0: Initial version of the document.
1. **Introduction**

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 Draft. The introduction and the explanation of the proposed changes are not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe Draft (i.e. they are instructions to the 802.11be 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** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 6254 | Ming Gan | 9.4.2.5 | 0.00 | The DL traffic indication for the non-AP MLD which has multi-link setup with the AP MLD which includes the nontransmitted BSSID that is in the same multiple BSSID set as the AP that transmits TIM element is missing, please add it. | as in the comment | Revised-Agree with the comment in principle. Propose resolution to account for the suggested change.TGbe editor to make the changes shown in 21/1714r0 under all headings that include CID 6254. |

**Discussion:** None.

**9.4.2.5 TIM element**

**9.4.2.5.1 General**

***Change the ninth paragraph as follows (#CID 6254):***

When the TIM is carried in a non-S1G PPDU, the traffic indication virtual bitmap, maintained by the AP, the mesh STA or the AP MLD that generates a TIM, consists of 2008 bits, and it is organized into 251 octets such that bit number N (0  *N*  2007) in the bitmap corresponds to bit number (N mod 8) in octet number *N* / 8 where the low order bit of each octet is bit number 0, and the high order bit is bit number 7. When the TIM is carried in an S1G PPDU, the traffic-indication virtual bitmap has the hierarchical structure shown in Figure 9-152 (Hierarchical structure of traffic-indication virtual bitmap carried in an S1G PPDU). Each bit in the traffic indication virtual bitmap corresponds to traffic buffered for a specific neighbor peer mesh STA within the MBSS that the mesh STA is prepared to deliver1~~,~~ or for a STA that is not affiliated with an MLD within the BSS that the AP is prepared to deliver at the time the Beacon frame is transmitted, or for a non-AP MLD that the AP MLD with which the AP is affiliated is prepared to deliver at the time the Beacon frame is transmitted. Bit number N indicates the status of buffered, individually addressed MSDUs/MMPDUs for the STA or the non-AP MLD whose AID is N, or group addressed MSDUs/MMPDUs for the STAs whose group AID is N. It is set as follows:

—If the STA is not using APSD, and any individually addressed MSDUs/MMPDUs for that STA are buffered and the AP or the mesh STA is prepared to deliver them, then bit number N in the traffic indication virtual bitmap is 1.

—If the STA is using APSD, and any individually addressed MSDUs/MMPDUs for that STA are buffered in at least one nondelivery-enabled AC (if there exists at least one nondelivery-enabled AC), then bit number N in the traffic indication virtual bitmap is 1.

—If the STA is using APSD, all ACs are delivery-enabled, and any individually addressed MSDUs/MMPDUs for that STA are buffered in any AC, then bit number N in the traffic indication virtual bitmap is 1.

***Change the following paragraph in 35.3.10.4 Traffic indication as follows (#CID 6254):***

**35.3.10.4 Traffic indication**

An AP MLD shall assign a single AID to a non-AP MLD upon successful multi-link setup. All the STAs of the non-AP MLD shall have the same AID as the one assigned to the non-AP MLD during multi-link setup.

If an AP affiliated with an AP MLD is not in a multiple BSSID set, the AP shall indicate pending buffered traffic for the non-AP MLDs that have multi-link setup with that AP MLD using partial virtual bitmap of the TIM element in a Beacon frame as described in 9.4.2.5 (TIM element).

If an AP affiliated with an AP MLD is in a multiple BSSID set and the AP corresponds to a transmitted BSSID, then the AP shall indicate pending buffered traffic for the non-AP MLDs that have multi-link setup with the AP MLD with which the non-transmitted BSSID in the same Multiple BSSID set as the AP is affiliated using partial virtual bitmap of theTIM element in a Beacon frame as described in 9.4.2.5 (TIM element).

Note-If an AP affiliated with an AP MLD is in a multiple BSSID set and the AP corresponds to a nontransmitted BSSID, then the AP shall not transmit a Beacon frame.

An AP MLD may recommend a non-AP MLD to use one or more enabled links to retrieve individually addressed buffered BU(s). The AP’s indication may be carried in a broadcast or a unicast frame.

An AP MLD shall buffer a BU with a TID at the AP MLD if the TID is not mapped to any link on which the corresponding STA of a non-AP MLD is in active mode, and it shall set the bit in the partial virtual bitmap of the TIM element that corresponds to the AID of the non-AP MLD to 1.

An AP MLD shall buffer a BU with a TID at the AP MLD if the TID is not mapped to any link on which the corresponding STA of a non-AP MLD is in active mode, and it shall set the bit in the partial virtual bitmap of the TIM element that corresponds to the AID of the non-AP MLD to 1.