IEEE P802.11  
Wireless LANs

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| CC36 -Resolution-for-clause-9.4.2.5.1 | | | | |
| Date: 2021-09-02 | | | | |
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Abstract

This submission proposes CR for CID 7565, 4333, 4334, 4335, 4336 (CC36).

Revisions:

* Rev 0: Initial version of the document.

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. This introduction is 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 802.11 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.***

| **CID** | **Commenter** | **Pg/Ln** | **Section** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- | --- |
| 7565 | Tomoko Adachi | 119/49 | 9.4.2.5.1 | It is said here that when it is a non-AP MLD, the TID element carries the AID of the non-AP MLD. But in 9.4.1.8 AID field, there is no description added for how the AID field will be for a non-AP MLD. | Add a description in 9.4.1.8 AID field that a single AID is assigned to a non-AP MLD. | **Revised**  Agree in principle with the comment. Need to include the AID assignment for a non-AP MLD in the section 9.4.1.8 AID field.  **TGbe please editor implement changes as shown in doc 11-21/1446r0 tagged as #7565.** |
| 4333 | Arik Klein | 119/46 | 9.4.2.5.1 | The bufferred traffic is not delivered by the AP MLD, but by one or more APs affiliated with the AP MLD to which the non-AP MLD is associated. Therfore, need to revise the following sentence "Each bit in the traffic indication virtual bitmap corresponds to traffic buffered... 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" | Consider revising as follows:"Each bit in the traffic indication virtual bitmap corresponds to traffic buffered... or for a non-AP MLD that \*is associated with\* the AP MLD, which one or more APs affiliated with it are prepared to deliver at the time the Beacon frame is transmitted" | **Revised**  Agree in principle with the comment.  **TGbe please editor implement changes as shown in doc 11-21/1446r0 tagged as #4333.** |
| 4334 | Arik Klein | 119/52 | 9.4.2.5.1 | The sentence needs to set the exact requirements when the bit number N in the traffic virtual bitmap is set to 1 for the MLD case | consider adding the following sentence after the existing sentence: "If none of STAs affiliated with non-AP MLD are using APSD, and any individually addressed MSDUs/MMPDUs for that non-AP MLD are buffered and any of the APs affiliated with AP MLD associated with the non-AP MLD is prepared to deliver them, then bit number N in the traffic indication virtual bitmap is 1" | **Revised**  Agree in principle with the comment.  Need to add the corresponding requirement for the MLD case for the cases specified in section 9.4.2.5.1 regarding the indication of bit N in the bitmap included in the TIM element  **TGbe please editor implement changes as shown in doc 11-21/1446r0 tagged as #4334.** |
| 4335 | Arik Klein | 119/55 | 9.4.2.5.1 | The sentence needs to set the exact requirements when the bit number N in the traffic virtual bitmap is set to 1 for the MLD case | consider adding the following sentence after the existing sentence: "If all STAs affiliated with non-AP MLD are using APSD, and any individually addressed MSDUs/MMPDUs for that non-AP MLD 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" | **Revised**  Agree in principle with the comment.  Need to modify the current condition for the non-AP STA affiliated with non-AP MLD. The requirement applies to each individual affiliated non-AP STA.  **TGbe please editor implement changes as shown in doc 11-21/1446r0 tagged as #4335.** |
| 4336 | Arik Klein | 119/61 | 9.4.2.5.1 | The sentence needs to set the exact requirements when the bit number N in the traffic virtual bitmap is set to 1 for the MLD case | consider adding the following sentence after the existing sentence: "If all STAs affiliated with non-AP MLD are using APSD, all ACs are delivery-enabled, and any individually addressed MSDUs/MMPDUs for that non-AP MLD are buffered in any AC, then bit number N in the traffic indication virtual bitmap is 1" | **Revised**  Agree in principle with the comment.  Need to modify the current condition for the non-AP STA affiliated with non-AP MLD. The requirement applies to each individual of the affiliated non-AP STA.  **TGbe please editor implement changes as shown in doc 11-21/1446r0 tagged as #4336.** |

*TGbe editor: Please note baseline is 11be D1.1 and REVme D0.1*

* AID field

In infrastructure BSS operation, the AID field contains a value assigned by an AP or PCP during association or by an AP MLD during a ML (Re)Setup procedure (#7565). The field represents the 16-bit ID of a non-AP STA (#7565) or a non-AP MLD(#7565). In mesh BSS operation, the AID field is a value that represents the 16-bit ID of a neighbor peer mesh STA, assigned during mesh peering. The length of the AID field is 2 octets. The AID field is shown in Figure 9-120 (AID field format).

|  |  |
| --- | --- |
|  | Association ID (AID) |
| Octets: | 2 |
| * AID field format | |

The AID field for a non-DMG and non-S1G non-AP STA(#7565) or for non-AP MLD (#7565) is in the range of 1 to 2007. This value is placed in the 14 LSBs of the AID field, with the two MSBs of the AID field set to 1.

The AID field for an S1G STA is in the range of 1 to 8191, and the 3 MSBs of the AID field are reserved.

The AID field for a DMG STA is in the range 1 to 254. The value 255 is reserved as the broadcast AID, and the value 0 corresponds to the AP or PCP. The 8 MSBs of the AID field are reserved.

* + - 1. **TIM element**
         1. **General**

***TGbe Editor: Change the ninth paragraph as follows:***

When the TIM is carried in a non-S1G PPDU, the traffic indication virtual bitmap, maintained by the AP or the mesh STA 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
* 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
* a non-AP MLD that is associated with the AP MLD, where one or more APs affiliated with that AP MLD are prepared to deliver at the time their corresponding Beacon frame is transmitted (#4333).

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 none of STAs affiliated with non-AP MLD are using APSD, and any individually addressed MSDUs/MMPDUs for that non-AP MLD are buffered and any of the APs affiliated with AP MLD is prepared to deliver them, then bit number N in the traffic indication virtual bitmap is 1 (#4334)
* If the non-AP STA or the non-AP STA affiliated with the non-AP MLD (#4335) is using APSD, and any individually addressed MSDUs/MMPDUs for that non-AP STA or for that non-AP STA affiliated with the non-AP MLD (#4335) 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 non-AP STA or the non-AP STA affiliated with the non-AP MLD (#4336) is using APSD, all ACs are delivery-enabled, and any individually addressed MSDUs/ MMPDUs for that non-AP STA or for that non-AP STA affiliated with the non-AP MLD (#4336) are buffered in any AC, then bit number *N* in the traffic indication virtual bitmap is 1.
* Otherwise, bit number *N* in the traffic indication virtual bitmap is 0.

Straw Poll:

Do you support to incorporate the proposed draft text in this document 11-21/1446r0 to the next revision of TGbe Draft 1.1 to address the following CIDs: 7565, 4333, 4334, 4335, 4336?

Result: Yes/No/Abstain