IEEE P802.11
Wireless LANs

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| LB275 CR for CID 19364 |
| Date: 2023-10-15 |
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Abstract

This submission proposes CR for 1 CID 19364 (LB275)

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** |
| --- | --- | --- | --- | --- | --- | --- |
| 19364 | Brian Hart | 214/01 | 9.4.2.5.1 | As expressed, we have conditions for all STAs using APSD and no STAs using APSD, but no conditions if APSD is used on some links but not other links (mixed usage). This is badly written but works if APSD is an MLD level protocol but that doesn't seem to be the case, since P546L12 etc imply APSD is a per-link agreement not a per-MLD agreement. Or, this is incomplete if APSD is a per-link agreement | a) Define clearly in clause 35 if APSD is per link or per MLD agreement (or per link but all links have to match up!), b) if per link and mixed is possible, then extend this to account for the mixed usage case, c) if at MLD level, then rewrite for MLD not "all STAs affiliated ..." d) if per link and mixed is disallowed, add that language and a link to it. | **Revised**Agree with the comment. Adding NOTE 2 to refer the reader to section 35.3.12.2 where it is clearly defined that “All non-AP STAs affiliated with a non-AP MLD shall set each of the ACs U-APSD Flag subfields in the QoS Info field to the same value across all setup links”**TGbe editor please implement changes as shown in doc 11-23/1752r0 tagged as 19364** |

*TGbe editor: Please note baseline is 11be D4.1 and REVme D**3.0*

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

## Change the ninth paragraph, include splitting it in 2 paragraphs, 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 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 9-197 (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 APs affiliated with the AP MLD are prepared to deliver at the time the Bea- con 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 affiliated with an MLD and 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 not affiliated with an MLD and 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 not affiliated with an MLD and 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.

1How the AP or mesh STA determines the traffic it is prepared to deliver is outside the scope of this standard.

* If all STAs affiliated with non-AP MLD are not using APSD and any individually addressed MSDUs/MMPDUs for that non-AP MLD are buffered, then bit number *N* in the traffic indication virtual bitmap is 1.
* 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 in each of the affiliated STAs), then bit number *N* in the traffic indication virtual bitmap is 1.
* If all STAs affiliated with non-AP MLD are using APSD whereas all ACs are delivery-enabled per each affiliated STA 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.
* Otherwise, bit number *N* in the traffic indication virtual bitmap is 0.

(#19364) NOTE 1—The existence of individually addressed MSDUs/MMPDUs buffered for that non-AP MLD is based on the rules defined in 35.3.12.4 (Traffic indication).

(#19364) NOTE 2 – A non-AP MLD that uses APSD sets the ACs of the U-APSD Flag subfield as defined in 35.3.12.2 (Basic BSS operation).

Straw Poll:

Do you support to incorporate the proposed draft text in this document 11-23/1752r1 to the next revision of TGbe Draft 4.1, for addressing the following CIDs: 19364 (LB275)?

Result: Yes/No/Abstain