IEEE P802.11  
Wireless LANs

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| LB 266 Resolution for EMLMR Supported MCS And NSS Set related CIDs | | | | |
| Date: 2022-11-24 | | | | |
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Abstract

This submission proposes resolutions for the following CIDs for TGbe LB266:

10043 10369 10509 11383

Revisions:

* Rev 0: Initial version of the document
* Rev 1: Remove CID 14080 since it is resolved in doc 1505/r2.
* Rev 2: Add CID 11383

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.***

***TGbe editor: The baseline for this document is 11be D2.0.***

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| **CID** | **Commenter** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 10043 | Morteza Mehrnoush | 35.3.18 | 467.08 | From the current text, it's not clear what is the RX Max NSS and TX Max NSS should be set for NSS in EMLMR Supported MCS and NSS Set subfield. Is the max RX and TX NSS should be larger than or sum of each links RX and TX spatial streams? | please specify what is the max TX/RX NSS in EMLMR mode of operation | Rejected  Based on the current specification, it is clear that a non-AP MLD in EMLMR mode shall be able to support the TX/RX NSS up to the value indicated in the EMLMR Supported MCS And NSS Set subfield, meaning that such values are the max TX/RX NSS in EMLMR mode and should be smaller than or equal to the sum of each EMLMR link’s RX/TX NSS. |
| 10369 | Tomoko Adachi | 35.3.18 | 467.06 | "An MLD with dot11EHTEMLMROptionImplemented equal to true shall indicate the number of spatial streams NSS that a non-AP MLD supports ..." "An MLD" at the beginning should be the same with "a non-AP MLD" in the middle of the sentence. | Change it to read "An non-AP MLD with dot11EHTEMLMROptionImplemented equal to true shall indicate the number of spatial streams NSS that the non-AP MLD supports ...". | Revised  Agree with the commenter. Also made some editorial changes.  **Instruction to the editor**, ***please make the following changes with the CID tag 10369(doc.: IEEE 802.11-22/1743r2).*** |
| 10509 | Eldad Perahia | 35.3.18 | 467.06 | "shall indicate the number of spatial streams N SS that a non-AP MLD supports". Is this per link (and a field per link) or a single value for all links? | clarify | Revised  EMLMR Supported MCS And NSS Set subfield contains 1-3 MCS maps and each corresponds to one BW, so a non-AP MLD can determine its capabilities on any EMLMR link by checking the MCS maps given the link’s BW. The values in these MCS maps are for all links.  **Instruction to the editor**, ***please make the following changes with the CID tag 10509(doc.: IEEE 802.11-22/1743r2).*** |
| 11383 | Gaurang Naik | 9.4.1.74 | 191.23 | Need to specify the value carried in the EMLMR Link Bitmap subfield when the EML Control field is transmitted by an AP. | Add the following - 'An AP MLD with dot11EHTEMLMROptionImplemented equal to true that receives an EML Operating Mode Notification frame a STA affiliated with a non-AP MLD sets the EMLMR Link Bitmap subfield of the EML Operating Mode Notification frame that is sent in response to the value obtained from the received EML Operating Mode Notification frame.' after the paragraph ending on P191L28. | Rejected  Subclause 35.3.18 already has the text that addresses the commenter’s concern: *“The AP should send an EML Operating Mode Notification frame for confirming the mode switch at the AP MLD side to the non-AP STA with EML Control field set to the same value as EML Control field in the received EML Operating Mode Notification frame from the non-AP STA before the transition timeout expires.”*  Moreover, text in subclause 9.4.1.74 only provides the definition of EMLMR Link Bitmap, it does not specify who the carrier is, so it can be both non-AP MLD and AP MLD. |

**Proposed Text Change:**

**TGbe editor**: ***at P467-468 of IEEE P802.11be™/D2.0,*** ***please make the followin***g ***changes in 35.3.18 Enhanced multi-link multi-radio operation***

(#10369)A non-AP MLD with dot11EHTEMLMROptionImplemented equal to true shall indicate the number of spatial streams NSS that it supports for reception and transmission (#10509)on any EMLMR link during EMLMR operation in the EMLMR Supported MCS And NSS Set subfield of the EML Control field of the EML Operating Mode Notification frame.

…

When a non-AP MLD operates in the EMLMR mode, after (#10369)the initial frame exchange subject to its per-link spatial stream capabilities and operating mode defined by the exchanged Operating Mode Notification frame, (EHT) OM control on one of the EMLMR links, the non-AP MLD shall be able to support the following until the end of the frame exchange sequence initiated by the initial frame exchange:

* Receive PPDUs with the number of spatial streams up to the value as indicated in the EMLMR Supported MCS And NSS Set subfield of the EML Control field of the EML Operating Mode Notification frame, at a time on the link (#10369)when the initial frame exchange was made.
* Transmit PPDUs with the number of spatial streams up to the value as indicated in the EMLMR Supported MCS And NSS Set subfield of the EML Control field of the EML Operating Mode Notification frame, at a time on the link (#10369)when the initial frame exchange was made.

After the end of the frame exchange sequence, each STA (#10369)affiliated with the non-AP MLD in the EMLMR mode shall be able to transmit or receive PPDU, subject to its per-link spatial stream capabilities and operating mode defined by the exchanged Operating Mode Notification frame, (EHT) OM control, and subject to any switching delay indicated by the non-AP MLD.