IEEE P802.11
Wireless LANs

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| LB271 CR Editorials for Clause 35.3.7.3 |
| Date: 2023-03-13 |
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Abstract

This submission proposes CR for 14 editorial CIDs: 15118, 15119, 15120, 15600, 15630, 15752, 16190, 16348, 16467, 16590, 16591, 16592, 17340, 17829 (LB271)

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: adding green “tags” to CIDs (by TGbe chair) and some minor updates.

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** |
| --- | --- | --- | --- | --- | --- | --- |
| 17340 | Alfred Asterjadhi | 523/09 | 35.3.7.3.1 | No need to cite references here. It comes for free when saying below. Remove both references. | As in comment. | **Accepted** |
| 15118 | Ezer MELZER | 523/56 | 35.3.7.3.2 | Typo: "..on the link thati s included .." | Please revise as follows: "..on the link that is included .." | **Accepted** |
| 15630 | Atsushi Shirakawa | 523/56 | 35.3.7.3.2 | Typo: "thati s" should be "that is" | as in comment | **Accepted** |
| 16590 | Arik Klein | 523/56 | 35.3.7.3.2 | typo: "..on the link thati s included .."--> "..on the link that is included .." | As in comment | **Accepted** |
| 15600 | Bo Sun | 523/57 | 35.3.7.3.2 | change " thati s" to "that is" | as in comment | **Accepted** |
| 15752 | Xiangxin Gu | 523/57 | 35.3.7.3.2 | "thati s included" should be "that is included" | as the comment | **Accepted** |
| 16467 | Qing Xia | 523/57 | 35.3.7.3.2 | """... operating on the link thati s included in ..."" Typo of ""thati s"", please change to ""that is""" | As in comment | **Accepted** |
| 17829 | Yunbo Li | 523/57 | 35.3.7.3.2 | "thati s" --> "that is" | As in comment | **Accepted** |
| 16190 | Ming Gan | 523/57 | 35.3.7.3.2 | a typo | change "thati s" to "that is" | **Accepted** |
| 15119 | Ezer MELZER | 523/61 | 35.3.7.3.2 | Typo: "Disabled AP Link Indication subfield" | Please revise as follows: "Disabled Link Indication subfield" | **Accepted** |
| 16591 | Arik Klein | 523/61 | 35.3.7.3.2 | Typo: "Disabled AP Link Indication subfield" | Please revise as follows: "Disabled Link Indication subfield" | **Accepted** |
| 16348 | Leonardo Lanante | 524/01 | 35.3.7.3.2 | There are 16 instances of EHT non-AP STA vs 723 instances of non-AP EHT STA which refers to the same thing. | Change all instances of EHT non-AP STA to non-AP EHT STA | **Revised**Change “an EHT non-AP STA” to “a non-AP EHT STA” for all the 9 instances in the TGbe D3.0.**TGbe editor please implement changes as shown in doc 11-23/0351r1 tagged as 16348.** |
| 15120 | Ezer MELZER | 524/22 | 35.3.7.3.2 | Typo: "affiliated an MLD" | Please revise as follows: "affiliated with an MLD" | **Accepted** |
| 16592 | Arik Klein | 524/22 | 35.3.7.3.2 | typo: "affiliated an MLD" --> "affiliated with an MLD" | As in comment | **Accepted** |

*TGbe editor: Please note baseline is 11be D3.0 and REVme D**2.1*

###### **Affiliated AP link disablement and enablement**

* + - * 1. **General**

***Change the following subclause, as follows:***

An AP MLD shall use the procedures described in [35.3.7.1.7 (Advertised TID-to-link mapping in Beacon](#bookmark55) [and Probe Response frames)](#bookmark55) in order to disable or enable a link for all associated non-AP MLDs. Further rules pertaining to the disablement and enablement are described in the subclauses below (#17340)

###### **Affiliated AP link disablement**

***Change the 3rd paragraph, as follows:***

When an AP MLD advertises that a link is disabled for all associated non-AP MLDs, after the time indicated by the Mapping Switch Time field is reached:

* the Disabled Link Indication subfield shall be set to 1 in the MLD Parameters subfield corresponding to the AP affiliated with the AP MLD and operating (#15118) on the link that is included in the Neighbor AP Information field in the Reduced Neighbor Report element carried in the Beacon or Probe Response frames transmitted by any of the APs affiliated with the AP MLD and any APs that set the Co- Located AP bit of the BSS Parameters subfield of the TBTT Information field of the Neighbor AP Information field to 1 for the disabled AP. (#15119)If the Disabled Link Indication subfield corresponding to a reported AP is set to 1, then the Neighbor AP TBTT Offset subfield included in the same TBTT Information field of the Reduced Neighbor Report element shall be set to 255.
* (#16348)a non-AP EHT STA affiliated with a non-AP MLD that is associated with the AP MLD shall not use the link to transmit individually addressed frames to the AP affiliated with the AP MLD that is operating on a link that is disabled.
* (#16348)a non-AP EHT STA affiliated with a non-AP MLD that is not associated with the AP MLD shall not transmit ML Probe Request, Authentication, and (Re)association Request frames to the AP affiliated with the AP MLD while the link is disabled (as indicated in the Expected Duration field in the advertised TID-To-Link Mapping element that does not include Mapping Switch time field, or as indicated in the Disabled Link Indication subfield in the Reduced Neighbor Report element).
* (#16348)a non-AP EHT STA affiliated with a non-AP MLD that is not associated with the AP MLD should not use the link to transmit other individually addressed management frames to the AP affiliated with the AP MLD that is operating on a link that is disabled.
* a non-AP STA affiliated with the non-AP MLD shall not delete the GTK/IGTK/BIGTK values for the disabled link.

NOTE 1—When an AP MLD advertises that a link is disabled for all associated non-AP MLDs, a non-AP MLD remains associated with the AP MLD.

NOTE 2—The AP affiliated with an AP MLD that is operating on the link to become disabled may disassociate or use BTM in advance for non-AP STAs not affiliated (#15120) with an MLD.

NOTE 3—The non-AP MLD uses the GTK/IGTK/BIGTK for the reception of protected broadcast/groupcast management frames when the link becomes enabled again.

* + - * 1. **EHT PHY Capabilities Information field**

***Change the 44th row in Table 9-401m, as follows:***

**Table 9-401m—Subfield of the EHT PHY Capabilities Information field *(continued)***

|  |  |  |
| --- | --- | --- |
| **Subfield** | **Definition** | **Encoding** |
| 20 MHz-Only Lim- ited Capabilities Sup- port | Indicates whether a 20 MHz-only STA can announce the optional support of multiple RUs, DL/UL MU-MIMO, SU/MU beamfor- mee. | Set to 1 if a 20 MHz-only EHT STA can announce the optional support of multiple RUs, DL/UL MU-MIMO, SU/MU beamformee.Set to 0 otherwise for 20 MHz-only (#16348) non-AP EHT STA.Reserved for an AP and a non-AP STA that is not a 20 MHz-only (#16348)non-AP EHT STA. |
| 20 MHz-Only Trig- gered MU Beam- forming Full BW Feedback And DL MU-MIMO | Indicates whether or not a 20 MHz-only non- AP EHT STA with 20 MHz-Only Limited Capabilities Support subfield equal to 1 sup- ports triggered MU beamforming full BW feedback and DL MU-MIMO. | For a 20 MHz-only non-AP EHT STA with 20 MHz-Only Limited Capabili- ties Support subfield equal to 1:Set to 0 if not supported. Set to 1 if supported.Otherwise, reserved. |
| 20 MHz-Only M-RUSupport | Indicates whether or not a 20 MHz-only non- AP EHT STA with 20 MHz-Only Limited Capabilities Support subfield equal to 1 sup- ports multiple RUs. | For a 20 MHz-only non-AP EHT STA with 20 MHz-Only Limited Capabili- ties Support subfield equal to 1:Set to 0 if not supported. Set to 1 if supported.Otherwise, reserved. |

###### **BSS\_COLOR**

***Change the following paragraph, as follows:***

An EHT STA shall set the parameter BSS\_COLOR in the TXVECTOR following the rules defined in

* + - (BSS\_COLOR) and with the following additions:

— The rules that apply to an HE MU PPDU shall also apply to an EHT MU PPDU

(#16348) A non-AP EHT STA that transmits an EHT MU PPDU addressed to a STA that is not a member of the transmitting STA’s EHT BSS, shall set the TXVECTOR parameter BSS\_COLOR to 0.

###### **EHT BSS operation**

###### **Basic EHT BSS operation**

***Change the 4th paragraph, as follows:***

If the peer AP is operating as an EMA AP, (#16348) a non-AP EHT STA should follow the procedure described in 11.1.3.8.3 (Discovery of a nontransmitted BSSID profile) for efficient discovery during scanning and to save power after association.

1. Extremely high throughput (EHT) PHY specification

# Introduction

###### **Introduction to the EHT PHY**

***Change the 19th paragraph, as follows:***

A 20 MHz operating non-AP EHT STA shall support the following with the exception that a 20 MHz-only (#16348) non-AP EHT STA with 20 MHz-Only Limited Capabilities Support subfield equal to 1 optionally supports MRUs:

* 26-, 52-, and 106-tone RU sizes and 52+26-tone MRU size on locations allowed in [36.3.2.6 (RU and](#bookmark47) [MRU restrictions for 20 MHz operation)](#bookmark47) in the primary 20 MHz channel within 40 MHz PPDU in the 2.4 GHz band, and 40 MHz, 80 MHz, and 160 MHz PPDU in the 5 GHz and 6 GHz bands, and 320 MHz PPDU in the 6 GHz band.

***Change the 21th paragraph, as follows:***

A 20 MHz-only (#16348) non-AP EHT STA with 20 MHz-Only Limited Capabilities Support subfield equal to 1 may support the following:

* 52+26-tone MRU size on locations allowed in [36.3.2.6 (RU and MRU restrictions for 20 MHz](#bookmark47) [operation)](#bookmark47).
* Reception of a non-OFDMA EHT MU PPDU utilizing MU-MIMO (DL MU-MIMO).
* MU-MIMO transmission in a non-OFDMA EHT TB PPDU (UL MU-MIMO). If supported,
	+ The non-AP EHT STA shall support transmitting UL MU-MIMO where the total spatial streams summed across all users is less than or equal to eight. The maximum number of spatial streams per user the non-AP STA can receive in the UL MU-MIMO transmission shall be equal to min(*n*, 4), where *n* is the maximum number of spatial streams supported for reception of a non-OFDMA EHT MU PPDU sent to single non-AP STA. The non-AP STA shall be able to receive its intended spatial streams in a UL MU-MIMO transmission with a total number of spatial streams across all users of at least four.
* Triggered MU beamforming full bandwidth feedback.

Straw Poll:

Do you support to incorporate the proposed draft text in this document 11-23/0351r1 to the next revision of TGbe Draft 3.0, for addressing the following 14 CIDs: 15118, 15119, 15120, 15600, 15630, 15752, 16190, 16348, 16467, 16590, 16591, 16592, 17340, 17829 (LB271)?

Result: Yes/No/Abstain