IEEE P802.11  
Wireless LANs

|  |
| --- |
| **LB266 Comment Resolutions for CID 11341** |
| **Date:** 2022-08-08 |
| **Author(s):** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Affiliation** | **Address** | **Phone** | **Email** |
| Eunsung Park | LG Electronics | 19, Yangjae-daero 11gil, Seocho-gu, Seoul 137-130, Korea |  | esung.park@lge.com |
| Dongguk Lim |  | dongguk.lim@lge.com |
| Jinyoung Chun |  | jiny.chun@lge.com |
| Jinsoo Choi |  | js.choi@lge.com |
| Yan Xin | Huawei |  |  | Yan.Xin@huawei.com |

Abstract

This submission proposes a resolution for CID 11341.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Revision based on the discussion.

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 D2.1 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe D2.1 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 11341*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **PP.LL** | **Comment** | **Proposed Change** | **Resolution** |
| 11341 | 36.3.2.5 | 599.54 | Change the title of 36.3.2.5 to 20 MHz operation non-AP EHT STA in wideband OFDMA". Also remove the text related to 20MHz operation STA RU/MRU support for 20MHz PPDU (e.g. P600 L12 to 21) since it is redundant. That's basically the definition of supporting 20MHz Fous the discussion on supporting wideband OFDMA. Make the similar changes to the title and content of 36.3.2.6 to 36.3.2.8. | as in the comment | Revised  Agree in principle with the commenter. It would be better to focus on supporting wideband OFDMA transmission in clauses for 20/80/160 MHz operating non-AP EHT STA since it is very straightforward to support 20/80/160 MHz transmission for 20/80/160 MHz operating STA, respectively.  TGbe editor: Make the changes shown in 11-22/1288r1. |

*TGbe Editor: Please make the following changes in 36.3.2.5, 36.3.2.7 and 36.3.2.8 of D2.1:*

**36.3.2.5 20 MHz operating non-AP EHT STAs participating in wider bandwidth OFDMA**

A 20 MHz operating non-AP EHT STA is a non-AP EHT STA that is operating in a 20 MHz channel width, such as a 20 MHz-only non-AP EHT STA or a non-AP EHT STA that reduces its operating channel width to 20 MHz (see 36.1.1 (Introduction to the EHT PHY)).

The operating channel width of a non-AP EHT STA is identified by a CHANNEL\_WIDTH parameter contained in the PHYCONFIG\_VECTOR carried in a PHY-CONFIG.request primitive (see 36.2.4 (PHY CONFIG\_VECTOR)).

NOTE 1—The supported channel width of a non-AP EHT STA is indicated in the Supported Channel Width subfield in the HE PHY Capabilities Information field (see 9.4.2.248.3 (HE PHY Capabilities Information field)) and the Support For 320 MHz In 6 GHz subfield in the EHT Capabilities element (see 9.4.2.313.3 (EHT PHY Capabilities Information field)).

NOTE 2—The operating channel width may be updated by Operating Mode Notification frame, Operating Mode Notification element with the Rx NSS Type subfield equal to 0, or Channel Width subfield in the OM Control subfield (see 9.2.4.6a.2 (OM Control)) if the EHT OM Control subfield (9.2.4.7.8 (EHT OM Control)) is not present in the same A-Control field, or the Channel Extension subfield in the EHT OM Control subfield together and with the OM Control subfield sent by the EHT STA.

A 20 MHz operating non-AP EHT STA shall support the transmission and reception of 26-tone RU, 52-tone RU, 106-tone RU, and 52+26-tone MRU in locations allowed in 36.3.2.6 (RU and MRU restrictions for 20 MHz operation) within its operating channel for a 40 MHz, 80 MHz, 160 MHz, and 320 MHz OFDMA EHT PPDU. A 20 MHz operating non-AP EHT STA may (#10824)support the reception of 242-tone RU within its operating channel for a 40 MHz, 80 MHz, 160 MHz, and 320 MHz OFDMA EHT PPDU (see 36.3.2.6 (RU and MRU restrictions for 20 MHz operation)). An EHT AP with an operating channel width greater than 20 MHz shall be able to allocate an RU (see 36.3.2.1 (Subcarriers and resource allocation in EHT PPDUs)) or MRU (see 36.3.2.2 (Subcarriers and resource allocation for multiple RUs)) on a 20 MHz channel within the BSS bandwidth in a 40 MHz, 80 MHz, 160 MHz or 320 MHz OFDMA EHT PPDU to a 20 MHz operating non-AP EHT STA depending on the AP’s operating channel width. The AP’s operating channel width is the same as the BSS channel width. When an EHT AP assigns an RU or MRU to a 20 MHz operating non-AP EHT STA, the EHT AP shall follow the restrictions for 20 MHz operation in 36.3.2.6 (RU and MRU restrictions for 20 MHz operation).

NOTE 3—As defined in 35.12.4 (CENTER\_FREQUENCY\_SEGMENT), a 20 MHz operating non-AP EHT STA operates in the primary 20 MHz channel except when the 20 MHz operating non-AP EHT STA sets dot11HESubchannelSelectiveTransmissionImplemented equal to true in which case the 20 MHz operating non-AP EHT STA might operate in any 20 MHz channel within the BSS bandwidth of 40 MHz, 80 MHz or 160 MHz. The 20 MHz operating non-AP EHT STA might also operate in any 20 MHz channel within the primary 160 MHz when the BSS bandwidth is 320 MHz.

An EHT AP shall not allocate an RU or MRU outside of the primary 20 MHz in a 40 MHz, 80 MHz, 160 MHz, or 320 MHz EHT MU or EHT TB PPDU to (#12200)a 20 MHz operating non-AP EHT STA if the 20 MHz operating non-AP EHT STA has not set up SST operation on (#11206)a nonprimary 20 MHz channel with the EHT AP.

**36.3.2.7 80 MHz operating non-AP EHT STAs participating in wider bandwidth OFDMA**

An 80 MHz operating non-AP EHT STA is a non-AP EHT STA that supports an operating channel width up to 80 MHz in the current operating mode (see 36.1.1 (Introduction to the EHT PHY)).

NOTE 1—The indication of the supported channel width defined in the Supported Channel Width Set subfield in the HE Capabilities element and the Supported For 320 MHz In 6 GHz subfield in the EHT Capabilities element and the operating channel width identified by the CHANNEL\_WIDTH parameter contained in the PHYCONFIG\_VECTOR of a non-AP EHT STA are described in 36.3.2.5 (20 MHz operating non-AP EHT STAs).

An 80 MHz operating non-AP EHT STA shall be able to participate in 160 MHz, and 320 MHz EHT DL and UL OFDMA transmissions. An EHT AP with a CHANNEL\_WIDTH parameter greater than 80 MHz shall be able to allocate an RU (see 36.3.2.1 (Subcarriers and resource allocation in EHT PPDUs) or MRU (see 36.3.2.2 (Subcarriers and resource allocation for multiple RUs)) within the 80 MHz operating bandwidth of the non-AP EHT STA in a 160 MHz or 320 MHz EHT MU or EHT TB PPDU.

NOTE 2—As defined in 35.12.4 (CENTER\_FREQUENCY\_SEGMENT), an 80 MHz operating non-AP EHT STA operates in the primary 80 MHz channel and might operate in the secondary 80 MHz channel that does not include any inactive 20 MHz subchannel when the 80 MHz operating non-AP EHT STA sets dot11HESubchannelSelectiveTransmissionImplemented to true.

NOTE 3—As defined in 35.5.1.2 (RU allocation in an EHT MU PPDU), an EHT AP does not allocate an RU or MRU in the secondary 160 MHz of a 320 MHz EHT MU or EHT TB PPDU to an 80 MHz operating non-AP EHT STA. An EHT AP does not allocate an RU or MRU in the secondary 80 MHz channel of a 160 MHz or 320 MHz EHT MU or EHT TB PPDU to an 80 MHz operating non-AP EHT STA, if the 80 MHz operating non-AP EHT STA has not set up SST operation by following the procedure in 26.8.7 (HE subchannel selective transmission) on the secondary 80 MHz channel with the EHT AP or if there is an inactive 20 MHz subchannel within the secondary 80 MHz channel.

An 80 MHz operating non-AP EHT STA shall support all RU and MRU sizes within its operating 80 MHz channel when participating in 160 MHz or 320 MHz EHT DL and UL OFDMA transmissions.

An 80 MHz operating non-AP EHT STA shall be able to transmit the preamble and data in the allocated RU or MRU within its operating 80 MHz channel in a 160 MHz or 320 MHz EHT TB PPDU.

An 80 MHz operating non-AP EHT STA shall be able to support the reception of the preamble and data in the allocated RU or MRU within its operating 80 MHz channel in a 160 MHz or 320 MHz EHT MU PPDU.

**36.3.2.8 160 MHz operating non-AP EHT STAs participating in wider bandwidth OFDMA**

A 160 MHz operating non-AP EHT STA is a non-AP EHT STA that supports an operating channel width up to 160 MHz in the current operating mode (see 36.1.1 (Introduction to the EHT PHY)). The indications of the supported channel width defined in the Supported Channel Width Set subfield in the HE Capabilities element and the Support For 320 MHz In 6 GHz subfield in the EHT Capabilities element, and the operating channel width identified by the CHANNEL\_WIDTH parameter contained in the PHYCONFIG\_VECTOR of a 160 MHz operating non-AP EHT STA are described in 36.3.2.5 (20 MHz operating non-AP EHT STAs).

A 160 MHz operating non-AP EHT STA shall be able to participate in 320 MHz EHT DL and UL OFDMA transmissions. An EHT AP with CHANNEL\_WIDTH parameter greater than 160 MHz shall be able to allocate an RU or MRU on the primary 160 MHz channel in a 320 MHz EHT MU or EHT TB PPDU to a 160 MHz operating non-AP EHT STA.

NOTE—As defined in 35.5.1.2 (RU allocation in an EHT MU PPDU), an EHT AP with dot11EHTBaseLineFeaturesImplementedOnly equal to true, can allocate an RU or MRU only on the primary 160 MHz in a 320 MHz EHT MU or EHT TB PPDU, to a 160 MHz operating non-AP EHT STA.

A 160 MHz operating non-AP EHT STA shall support all RU and MRU sizes within the primary 160 MHz channel when participating in 320 MHz EHT DL and UL OFDMA transmissions.

A 160 MHz operating non-AP EHT STA shall be able to transmit the preamble and data in the allocated RU or MRU on the primary 160 MHz channel in a 320 MHz EHT TB PPDU.

A 160 MHz operating non-AP EHT STA shall be able to support the reception of the preamble and data in the allocated RU or MRU on the primary 160 MHz channel in a 320 MHz EHT MU PPDU.