IEEE P802.11  
Wireless LANs

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| **LB271 Comment Resolutions for 36.3.2.5 20 MHz operating non-AP EHT STAs participating in wider bandwidth OFDMA** |
| **Date:** 2023-05-14 |
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Abstract

This submission proposes a resolution for the following 3 CIDs:

16631, 16632, 16633

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 D3.1 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe D3.1 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 16631, 16632, 16633*

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| **CID** | **Clause** | **PP.LL** | **Comment** | **Proposed Change** | **Resolution** |
| 16631 | 36.3.2.5 | 721.54 | Add sounding for wider bandwidth related text in section 36.3.2.5. | As in comment | Revised  Agree in principle with the commenter.  TGbe editor to make the changes shown in 11-23/0781r0. |
| 16632 | 36.3.2.5 | 722.13 | 52+26-tone RU support is mandatory requirements for 20 MHz operationg non-AP STA regardless of "20 MHz-Only Limited Capabilities Support subfield"?  P722L12-13 says "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". However, in P660L8-11, "MRU support is not the mandatory requirement for a 20 MHz-only non-AP STA with 20 MHz-Only Limited Capabilities Support subfield equal to 1" | Please clarify. | Revised  Agree in principle with the commenter.  TGbe editor to make the changes shown in 11-23/0781r0. |
| 16633 | 36.3.2.5 | 722.36 | SST related texts are only in 20 MHz operating STA. How about other STA? | Please clarify. | Rejected  There are NOTEs for a SST relative description. Please see NOTE 2 and NOTE 3 in 36.3.2.7 and NOTE 2 in 36.3.2.8. |

*TGbe Editor: Please make the following changes in Section 36.3.2.5 of D3.1:*

**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 Width Extension subfield in the EHT OM Control subfield combined with the Channel Width subfield in the OM Control subfield sent by the EHT STA.

(#16632)A 20 MHz operating non-AP EHT STA shall support the transmission and reception of 26-tone RU, 52-tone RU, and 106-tone RU 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.

(#16632)A 20 MHz operating non-AP EHT STA shall support the transmission and reception of 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, except for a 20 MHz-only non-AP STA with dot11EHT20MhzOnlyLimitedCapabiltiesSupportImplemented equal to true.

(#16632)A 20 MHz-only non-AP STA with dot11EHT20MhzOnlyLimitedCapabiltiesSupportImplemented equal to true may support the transmission and reception of 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 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)) to a 20 MHz operating non-AP EHT STA within the operating channel of the non-AP EHT STA in a 40 MHz, 80 MHz, 160 MHz or 320 MHz OFDMA EHT PPDU as limited by 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 35.11.4 (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 a 20 MHz operating non-AP EHT STA if the 20 MHz operating non-AP EHT STA has not set up SST operation on a nonprimary 20 MHz channel with the EHT AP.

(#16631)A 20 MHz operating non-AP EHT STA may support the reception of 40 MHz, 80 MHz and 160 MHz EHT sounding NDP within its operating channel (see Table 9-45b—Settings for BW, Partial Bandwidth Info subfield in the EHT NDP Announcement frame).

*TGbe Editor: Please make the following changes on P649L17 of D3.1:*

A 20 MHz-only non-AP EHT STA with dot11EHT20MhzOnlyLimitedCapabilitiesSupport equal to true shall set 20MHz-Only Limited Capabilities Support subfield in its EHT Capabilities element to 1 and set the various subfields in HT Capabilities element if exists, VHT Capabilities element if exists, HE Capabilities element, EHT Capabilities element as shown in Table 35-7 (Indication of supported channel widths by an EHT STA) per the maximum supported channel width being equal to 20 MHz. A 20 MHz-only non-AP EHT STA affiliated with a non-AP MLD that includes at least one > 20 MHz affiliated non-AP STA shall set 20 MHz-Only Limited Capabilities Support subfield in its EHT Capabilities element to 0.

*TGbe Editor: Please make the following changes on P957L58 of D3.1:*

(#16632)dot11EHT20MhzOnlyLimitedCapabiltiesSupportImplemented TruthValue

*TGbe Editor: Please make the following changes on P964L48 of D3.1:*

(#16632)dot11EHT20MhzOnlyLimitedCapabiltiesSupportImplemented OBJECT-TYPE