IEEE P802.11
Wireless LANs

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| Proposed draft text for 34.x.x Support for large bandwidth |
| Date: 2020-09-14 |
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Abstract:

This document proposes draft text for “34.x.x Support for large bandwidth” in TGbe D0.1

The corresponding motions related to R1 of TGbe are shown in [1] and listed as below:

* Motions: 115 (#SP75)

R0: Initial proposed draft text.

R1: Modification of proposed text.

R2: Revised by 1) adding further descriptions on how to transmit and receive preamble and assigned RU when an 80/160 MHz operating non-AP EHT STA participates in a higher bandwidth EHT DL/UL OFDMA transmissions; 2) removing the descriptions related to 240/160+80 MHz transmission.

R3: Revised based on Jinsoo Choi’s comments.

**34.x.x Support for large bandwidth**

An 80 MHz operating non-AP EHT STA shall be able to participate in 160 MHz, 80+80 MHz, 320 MHz and 160+160 MHz EHT DL and UL OFDMA transmissions. An EHT AP shall be able to allocate a single 996-tone RU (see 34.3.2.2 (Subcarriers and resource allocation for wideband) or multiple RUs (see 34.3.3 Subcarriers and Resource Allocation for Multiple RUs) on one 80 MHz frequency segment within the BSS bandwidth in a 160 MHz, 80+80 MHz, 320 MHz or 160+160 MHz EHT MU or EHT TB PPDU to an 80 MHz operating non-AP EHT STA. An EHT AP shall not allocate an RU outside of the primary 80 MHz in a 160 MHz, 80+80 MHz, 320 MHz, or 160+160 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 on the non-primary 80 MHz channel with the EHT AP (TBD).

An 80 MHz operating non-AP EHT STA shall support tone mapping defined for a 160 MHz and 320 MHz EHT PPDU (see Table xxx (Data and pilot subcarrier indices for RUs in a 160 MHz EHT PPDU) and Table yyy (Data and pilot subcarrier indices for RUs in a 320 MHz EHT PPDU)) and multiple RUs in 80 MHz EHT PPDU when participating in 160 MHz, 80+80 MHz, 320 MHz or 160+160 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(s) on the 80 MHz frequency segment assigned by the EHT AP in a 160 MHz, 80+80 MHz, 320 MHz or 160+160 MHz EHT TB PPDU.

An 80 MHz operating non-AP STA shall be able to support the receiption of the preamble and data in the allocated RU(s) on the 80 MHz frequency segment assigned by the EHT AP in a 160 MHz, 80+80 MHz, 320 MHz or 160+160 MHz EHT MU PPDU (some restrictions TBD).

A 160 MHz operating non-AP EHT STA shall be able to participate in 320 MHz and 160+160 MHz EHT DL and UL OFDMA transmissions. An EHT AP shall be able to allocate a single 2x996-tone RU (see 34.3.2.2 (Subcarriers and resource allocation for wideband) or multiple RUs (see 34.3.3 Subcarriers and Resource Allocation for Multiple RUs) on either primary 160 MHz or secondary 160 MHz channel within the BSS bandwidth in a 320 MHz or 160+160 MHz EHT MU or EHT TB PPDU to a 160 MHz operating non-AP EHT STA. An EHT AP shall not allocate an RU on the secondary 160 MHz in a 320 MHz or 160+160 MHz EHT MU or EHT TB PPDU to a 160 MHz operating non-AP EHT STA if the 160 MHz operating non-AP EHT STA has not set up SST operation on the secondary 160 MHz channel with the EHT AP (TBD).

A 160 MHz operating non-AP EHT STA shall support tone mapping for a 320 MHz EHT PPDU (see Table yyy (Data and pilot subcarrier indices for RUs in a 320 MHz EHT PPDU)) and multiple RUs in 160 MHz EHT PPDU when participating in 320 MHz or 160+160 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(s) on the 160 MHz assigned by the EHT AP in a 320 MHz or 160+160 MHz EHT TB PPDU.

A 160 MHz operating non-AP STA shall be able to support the receiption of the preamble and data in the allocated RUs on the 160 MHz assigned by an EHT AP in a 320 MHz or 160+160 MHz EHT MU PPDU (some restrictions TBD).

**References:**

[1] 802.11-20/0566r66, Edward Au, Compendium of straw polls and potential changes to the specification framework document.