IEEE P802.11
Wireless LANs

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| 11be Spec text for EHT BSS Operation |
| Date: 2020-08-20 |
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Abstract

We propose the draft specification skeleton for MLD to help the creation of TGbe draft D0.1.

Revisions:

* Rev 0: Initial version of the document.

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| MAC | EHT BSS Operation | Liwen Chu | Guogang Huang, Po-kai Huang, Insun Jang, George Cherian, Mark Rison, Yonggang Fang, John Yi, Liuming Lu | Basics (R1) |  | Motion 112, #SP53Motion 112, #SP54 |

The texts is prepared for the following motions.

802.11be supports that in 6 GHz band, an EHT AP may announce different BSS operating bandwidth to non-EHT STAs than the BSS operating bandwidth it announces to EHT STAs when EHT BW covers disallowed 20 MHz channels and/or when the announced EHT BW is not supported by non-EHT amendments. The advertised BSS operating bandwidth to EHT STA shall include the advertised BSS operating bandwidth to non-EHT STA.

[Motion 112, #SP53, [13] and [95]]

802.11be supports defining an EHT operation element to indicate the channel configuration for EHT STA, which does not need to combine with the indication of CCFS0 and CCFS1 in HE operation elements at 6 GHz.

[Motion 112, #SP54, [13] and [172]]

**Proposed spec text:**

The baseline for this text is 802.11 REVmd draft 3.4, 802.11ax D6.0.

33. Extreme High Throughput (EHT) MAC specification

***TGbe editor: Add new a subclause 33.x*. (EHT BSS 6GHz Operation) *under clause 33x as follows:***

**33.x EHT BSS Operation**

**33.x.y EHT BSS 6GHz Operation**

In 6 GHz band, an EHT 6 GHz AP may announce to non-EHT 6 GHz STAs a BSS operating channel width that is different from thethe BSS operating channel width that it announces to EHT 6 GHz non-AP STAs if the EHT BSS operating channel width includes at least one disallowed 20 MHz channel and/or if the announced EHT BSS operating channel width is not supported by an HE BSS.

If an EHT 6 GHz AP doesn’t indicate at least one punctured 20MHz channelwithin the EHT BSS operating channel width in the EHT Operating element that it transmits and the EHT BSS operating bandwidth is less than or equal to 160 MHz, then the EHT 6 GHz AP shall indicate the same BSS operating bandwidth in the EHT Operating element and the HE Operating elements that it transmits.

If an EHT 6 GHz AP doesn’t indicate at least one punctured 20 MHz channel within the EHT BSS operating channel width in the EHT Operating element that it transmits and the EHT BSS operating width is greater than 160 MHz, then the EHT 6 GHz AP shall indicate a BSS operating channel width of 160 MHz in the HE Operating element that it transmits.

If an EHT 6 GHz AP indicates at least one punctured 20 MHz channel within the EHT BSS operating bandwidth and the EHT BSS operating bandwidth is less than or equal to 160MHz, then the EHT 6 GHz AP shall indicate in the HE Operating element a BSS operating channel width that is equal to the largest contiguous BW value that does not cover any of the punctured 20 MHz channels.

If an EHT 6 GHz AP announces the punctured 20 MHz channels covered by its BSS operating channel defined in EHT Operating element and the BSS operating channel defined in EHT Operating element is not in the primary 160 MHz channel, the EHT6 GHz AP shall announce 160 MHz channel width in the HE Operating element.

An EHT 6 GHz AP shall set the Channel Width subfield, the Channel Center Frequency Segment 0, and the Channel Center Frequency Segment 1 subfields in EHT Operating element as defined in Table 33-xx (6 GHz BSS channel width).

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|  | Table 33-xx 6 GHz BSS channel width  |
| EHT Operating Channel Width | Center Frequency Segment 1 field | EHT BSS channel width |
| 0 | 0 | 20 MHz |
| 1 | 0 | 40 MHz |
| 2 | 0 | 80 MHz |
| 3 | CCFS1 > 0 and |CCFS1 – CCFS0| = 8 | 160 MHz |
| 4 | CCFS1 > 0 and |CCFS1 – CCFS0| = 16 | 320 MHz |
| NOTE 1—CCFS0 represents the value of the Channel Center Frequency Segment 0 field and CCFS1 represents the value of the Channel Center Frequency Segment 1 field. |