IEEE P802.11
Wireless LANs

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| --- |
| EHT Operation element |
| Date: 2020-08-25 |
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1. **Introduction**

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. The introduction and the explanation of the proposed changes are 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).***

Motions captured:

802.11be supports defining an EHT Operation element with the following fields to indicate 320/160+160 MHz BSS bandwidth:

Channel Width field

CCFS field

[Motion 111, #SP0611-25, [13] and [171]]

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]]

1. **Proposed spec text**

***TGbe editor: Insert the new subclause 9.4.2.xxx EHT Operation element as follows:***

9.4.2.xxx EHT Operation Element

The operation of EHT STAs in an EHT BSS is controlled by the following:

— The HT Operation element, HE Operation element and the EHT Operation element if operating in the 2.4 GHz band

— The HT Operation element, VHT Operation element (if present), HE Operation element and the EHT Operation element if operating in the 5 GHz band

— The HE Operation element and the EHT Operation element if operating in the 6 GHz band

The format of the EHT Operation element is shown in Figure xxx (EHT Operation element format).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Element ID | Length | Element ID Extention | EHT Channel Configuration Information |
| Octets: | 1 | 1 | 1 | TBD |

**Figure xxx – EHT Operation element**

The Element ID, Length, and Element ID Extension fields are defined in 9.4.2.1 (General).

The EHT STA gets the channel configuration information from the EHT Operation element if operating in the 6 GHz band. The subfields of EHT Channel Configuration Information field are defined in Table 9-xxx (EHT Channel Configuration Information subfields)

**Table 9-xxx- EHT Channel Configuration Information subfields**

|  |  |  |
| --- | --- | --- |
| Subfield | Definition | Encoding |
| Channel Width | This field defines the EHT BSS bandwidth | Set to 0 for 20 MHz BSS bandwidth.Set to 1 for 40 MHz BSS bandwidth.Set to 2 for 80 MHz BSS bandwidth.Set to 3 for 160 MHz BSS bandwidth. Set to 4 for 320 MHz BSS bandwidth. Other values are reserved. |
| CCFS0 | Defines a channel center frequency for a 20, 40, 80, 160 or 320 MHz channel on which the EHT BSS operates in the 6 GHz band.  | For 80 MHz BSS bandwidth and the Channel Width subfield equal to 2, indicates the channel center frequency index of the 80 MHz channel on which the EHT BSS operates in the 6 GHz band.For 160 MHz BSS bandwidth and the Channel Width subfield equal to 3, indicates the channel center frequency index of the primary 80 MHz.For 320 MHz BSS bandwidth and the Channel Width subfield equal to 4, indicates the channel center frequency index of the primary 160 MHz.Reserved otherwise. |
| CCFS1 | Defines a channel center frequency for a 160 or 320 MHz channel on which the EHT BSS operates in the 6 GHz band. | For a 20, 40, or 80 MHz BSS bandwidth, this subfield is set to 0.For a 160 MHz BSS bandwidth and the Channel Width subfield equal to 3, indicates the channel center frequency index of the 160 MHz channel on which the EHT BSS operates in the 6 GHz band.For a 320 MHz BSS bandwidth and the Channel Width subfield equal to 4, indicates the channel center frequency index of the 320 MHz channel on which the EHT BSS operates in the 6 GHz band.Reserved otherwise. |