### IEEE P802.11Wireless LANs

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| Proposed Draft Specification for WideBand BW Signaling |
| Date: 2021-01-11 |
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Abstract

We propose draft text for solving some TBDs on wideband BW signaling.

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 subsequent TGbe Draft. This introduction is 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).***

***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.***

**Discussion:**

The following Motion on this item passed:

*802.11be supports indicating BW larger than 160 MHz through scrambler sequence in non-HT or non-HT duplicated frames.*

*[Motion 115, #SP102, [16] and [156]]*

The scrambler sequence is located in the first 7 bits (B0 to B6) of the Service field:



The scrambler sequence already contains (dynamic) BW signaling for 20, 40, 80, 160 MHz BW in bits B4-B6. In draft TGbe D0.2 the location for indicating BW larger than 160 MHz is currently TBD. We propose to define the location of the indication to be B3, which is inline with a previously ran SP that had very good support (~74% approval):

*Do you support to use one more bit in scrambler sequence, which is B3, to indicate bandwidth larger than 160MHz in non-HT or non-HT duplicated frames?*

**Propose:**

***TGbe editor: Please change the subclauses below as follows:***

* Control frames
* RTS frame format

***Change the third paragraph as follows:***

The TA field is the address of the STA transmitting the RTS frame or the bandwidth signaling TA of the STA transmitting the RTS frame. In an RTS frame transmitted by a VHT STA or an HE STA or an EHT STA in a non-HT or non-HT duplicate format to another VHT STA or HE STA or an EHT STA, the scrambling sequence carries the TXVECTOR parameters CH\_BANDWIDTH\_IN\_NON\_HT and DYN\_BANDWIDTH\_IN\_NON\_HT (see 10.3.2.7 (VHT and SIG RTS procedure)) and the TA field is a bandwidth signaling TA. In an RTS frame transmitted by an EHT STA in a non-HT duplicate format with bandwidth greater than 160 MHz to another EHT STA, the B3, B5 and B6 bits in the scrambling sequence carriers the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT value of CBW320 as in Table 36-1 (TXVECTOR and RXVECTOR parameters)and the TA field is a bandwidth signaling TA.

* PS-Poll frame format
* General

***Change the second paragraph as follows:***

The BSSID (RA) field is set to the address of the STA contained in the AP. The TA field value is the address of the STA transmitting the frame or a bandwidth signaling TA. In a PS-Poll frame transmitted by a VHT STA or an HE STA or an EHT STA in a non-HT or non-HT duplicate format and where the scrambling sequence carries the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT, the TA field value is a bandwidth signaling TA. In a PS-Poll frame transmitted by an EHT STA in a non-HT duplicate format with bandwidth greater than 160 MHz to another EHT STA, the B3, B5 and B6 bits in the scrambling sequence carries the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT value of CBW320 as in Table 36-1 (TXVECTOR and RXVECTOR parameters) and the TA field value is a bandwidth signaling TA.

* CF-End frame format

***Change the last paragraph as follows:***

If transmitted by a non-DMG STA, the BSSID (TA) field is the address of the STA contained in the AP except that the Individual/Group bit of the BSSID (TA) field is set to 1 in a CF-End frame transmitted by a VHT STA to a VHT AP or an HE STA or an EHT STA to an EHT AP to an HE AP in a non-HT or non-HT duplicate format to indicate that the scrambling sequence carries the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT. If transmitted by a DMG STA, the TA field is the MAC address of the STA transmitting the frame. In a CF-End frame transmitted by an EHT STA in a non-HT duplicate format with bandwidth greater than 160 MHz, the B3, B5 and B6 bits in the scrambling sequence carries the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT value of CBW320as in Table 36-1 (TXVECTOR and RXVECTOR parameters) and the TA field value is a bandwidth signaling TA.

* BlockAckReq frame format
* Overview

***Change the fourth paragraph as follows:***

The TA field value is the address of the STA transmitting the BlockAckReq frame or a bandwidth signaling TA. In a BlockAckReq frame transmitted by a VHT STA or an HE STA or an EHT STA in a non-HT or non-HT duplicate format and where the scrambling sequence carries the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT, the TA field value is a bandwidth signaling TA. In a BlockAckReq frame transmitted by an EHT STA in a non-HT duplicate format with bandwidth greater than 160 MHz, the B3, B5 and B6 bits in the scrambling sequence carries the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT value of CBW320 as in Table 36-1 (TXVECTOR and RXVECTOR parameters) and the TA field value is a bandwidth signaling TA.

***Change the title of the subclause 9.3.1.19 as follows:***

* VHT/HE/EHT NDP Announcement frame format

***Change the fourth paragraph as follows:***

The TA field is set to the address of the STA transmitting the VHT/HE NDP Announcement frame or the bandwidth signaling TA of the STA transmitting the VHT/HE/EHT NDP Announcement frame. In a VHT/HE/EHT NDP Announcement frame transmitted by a VHT or HE or EHT STA in a non-HT or non-HT duplicate format and where the scrambling sequence carries the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT, the TA field is set to a bandwidth signaling TA. In an EHT NDP Announcement frame transmitted by an EHT STA in a non-HT duplicate format with bandwidth greater than 160 MHz, the B3, B5 and B6 bits in the scrambling sequence carries the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT value of CBW320 as in Table 36-1 (TXVECTOR and RXVECTOR parameters) and the TA field value is a bandwidth signaling TA.

Straw Poll:

Do you support to incorporate the proposed draft text in 11-20/0077r0 into next version of TGbe Draft?