IEEE P802.11
Wireless LANs

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| Comment Resolution Spatial Reuse |
| Date: 2024-11-11 |
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Abstract

This submission proposes to address the following CIDs I-2 and I-3 changes are relative to Draft P802.11be\_D0.0, Draft P802.11REVme\_D6.0, and Draft P802.11bk D3.0.

Revisions:

1. Specify CIDs and add links

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 TGbk Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbk Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGbk Editor: Editing instructions preceded by “TGbk Editor” are instructions to the TGbk editor to modify existing material in the TGbk draft. As a result of adopting the changes, the TGbk editor will execute the instructions rather than copy them to the TGbk Draft.***

**The text preceded by “Discussion” is not part of the adopted changes.**

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| **CID** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| **I-2** | 24.5 | 9.3.1.23.2 | Add text to specifcy how to set the Spatial Reuse subfield | Add "The UL Spatial Reuse subfield is set to PSR\_AND\_NON\_SRG\_OBSS\_PD\_PROHIBITED" | **Revised**TGbk editor, make the changes identified in document [**https://mentor.ieee.org/802.11/dcn/24/11-24-1921-01-00bk-comment-resolution-spatial-reuse.docx**](https://mentor.ieee.org/802.11/dcn/24/11-24-1921-01-00bk-comment-resolution-spatial-reuse.docx) |
| **I-3** | 81.6 | 11.21.6.4.6 | The setting of the SPATIAL\_REUSE parameter for TB frames should be controlled by parsing the common info of the Trigger Frame. | Remove this line and instead add the requirement that the Sounding Ranging Trigger Frame should set this value in the common info field. | **Revised**TGbk editor, make the changes identified in document[**https://mentor.ieee.org/802.11/dcn/24/11-24-1921-01-00bk-comment-resolution-spatial-reuse.docx**](https://mentor.ieee.org/802.11/dcn/24/11-24-1921-01-00bk-comment-resolution-spatial-reuse.docx) |
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**9.3.1.23.2 Sounding subvariant**

1. ***TGbk Editor: Change subclause 9.3.1.23.2 as follows (on page 24, 11bk Draft3.0) do as follows:***

The format of the User Info field in the Sounding Ranging Trigger frame is defined in Figure [9-105](#F09o105) (User Info field format for Sounding subvariant).

The Trigger Dependent User Info subfield is not present in the Sounding Ranging Trigger frame.

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|  | B0 B11  | B12 B20 | B21 B23 | B24 B25 | B26 B31 | B32 B38 | B39 |
|  | AID12/RSID12 | Reserved | I2R Rep | Reserved | SS Allocation / RA-RUInformation | UL Target ReceivePower | Reserved |
| Bits: | 12 | 9 | 3 | 2 | 6 | 7 | 1 |

1. Figure 9-105—User Info field format for Sounding subvariant

The AID12/RSID12 subfield is identical to the corresponding subfield in the Poll Ranging Trigger frame.

The I2R Rep subfield indicates the number of ~~HE-~~LTF repetitions in the corresponding HE TB Ranging NDP or EHT TB Ranging NDP from the STA indicated in the AID12/RSID12 subfield; the I2R Rep subfield is set to the number of ~~HE-~~LTF repetitions minus 1. The value of the I2R Rep subfield is the same in all User Info fields in a single Trigger frame. If the Sounding Ranging Trigger frame is soliciting an HE TB Ranging NDP, t~~T~~he SS Allocation/RA-RU Information and UL Target Receive Power subfields are identical to the corresponding subfields in the HE variant User Info field of a Basic Trigger frame; see [9.3.1.22](#H09o3o1o22).4 (~~Trigger Frame format~~HE variant User Info field). If the Sounding Ranging Trigger frame is soliciting an EHT TB Ranging NDP, the SS Allocation/RA-RU Information and UL Target Receive Power subfields are identical to the corresponding subfields in the EHT variant User Info field of a Basic Trigger frame; see [9.3.1.22](#H09o3o1o22).5 (EHT variant User Info field).

In both the HE variant Common Info field and the EHT variant Common Info field, the UL STBC, LDPC Extra Symbol Segment, Pre-FEC Padding Factor, and PE Disambiguity subfields are reserved.

The GI And HE-LTF Type subfield in the HE variant Common Info field is set to 1 (2 × HE-LTF + 1.6 μs GI). The GI And HE/EHT-LTF Type field in the EHT variant Common Info field is set to 1 (2 × EHT-LTF + 1.6 μs GI). The MU-MIMO HE-LTF Mode subfield in the HE variant Common Info field is set to 0 (HE single stream pilot HE-LTF mode).

The UL Spatial Reuse subfield is set to SRP\_AND\_NON-SRG\_OBSS-PD\_PROHIBITED in both the HE variant Common Info field and the EHT variant Common Info field.

The Doppler subfield in the HE variant Common Info field is set to 0.

NOTE – The UL Length subfield of a Trigger frame is computed using Equation (27-11) (see 26.5.2.2.4) for soliciting HE PPDU and Equation (36-11) (see 35.5.2.2.4) for soliciting EHT PPDU, which is based on the TXTIME computed in 27.4.3 for HE PPDU and 36.4.3 for EHT PPDU. In case of Sounding Ranging Trigger frame, the resulting UL Length value is equivalent to 13+6‧*NLTF\_REPN~~HE-~~LTF*, where *NLTF-REP* is the number of ~~HE-~~LTF repetitions (given by the I2R Rep subfield value plus 1) and *N~~HE-~~LTF* is the number of ~~HE-~~LTF symbols (given by the Number Of HE-LTF Symbols And Midamble Periodicity subfield), see Figure 9-91 (HE variant Common Info field format); or is the Number Of HE/EHT-LTF Symbols subfield, see Figure 9-87b (EHT variant Common Info field format)). (#**1041**) (#**2073**)

**11.21.6.4.6 Transmission of a Ranging NDP**

1. ***TGbk Editor: Change subclause 11.21.6.4.6 as follows (on page 80, 11bk Draft3.0) do as follows:***

An ISTA transmitting an HE TB Ranging NDP or an EHT TB Ranging NDP to an RSTA shall set the TXVECTOR parameter as follows:

* The FORMAT parameter is set as follows:
	+ If the CH\_BANDWIDTH is equal to 320 MHz, is set to EHT\_TB.
	+ Otherwise, is set to HE\_TB~~,~~.
* The RANGING\_FLAG is present.
* The APEP\_LENGTH parameter is set to 0.
* The SECURE\_LTF\_FLAG is set as follows:
	+ ~~Is set to 0, i~~In the TB ranging measurement exchange ([11.21.6.4.3](#H11o21o6o4o3)), is set to 0.
	+ ~~Is set to 1, i~~In the TB ranging measurement exchange with secure ~~HE-~~LTF ([11.21.6.4.5.2](#H11o21o6o4o5o2)), is set to 1.
* The TX\_WINDOW\_FLAG is set to 1 if the SECURE\_LTF\_FLAG is set to 1 and the RSTA and ISTA have negotiated to use the optional frequency domain Tx window for I2R NDP~~D~~s; it is set to 0 otherwise.
* If the FORMAT parameter is equal to HE\_TB, ~~T~~the DOPPLER parameter is set to 0.
* The NUM\_STS parameter is set to the same value as the Number Of Spatial Streams subfield in the SS Allocation field in the User Info field in the preceding Ranging Sounding Trigger frame.
* The LTF\_REP parameter is set to the same value as the I2R Rep sub~~f~~ield in the User Info field in the preceding Ranging Sounding Trigger frame plus 1.
* (#**2052**) The CH\_BANDWIDTH parameter is set to the same value as the ~~TXVECTOR~~ RXVECTOR parameter CH\_BANDWIDTH or CH\_BANDWIDTH\_IN\_NON\_HT in the preceding Ranging Sounding Trigger frame.
* If the FORMAT parameter is equal to EHT\_TB the INACTIVE\_SUBCHANNELS parameter is set to the Puncturing Pattern field in the 320 MHz Ranging subelement of the IFTM frame.
* In the TB ranging measurement exchange with secure ~~HE-~~LTF, the LTF\_KEY parameter is set as defined in [11.21.6.4.5.2](#H11o21o6o4o5o2) (TB ranging measurement exchange with secure ~~HE-~~LTF). Otherwise, the LTF\_KEY parameter is not present.
* If the FORMAT parameter is equal to HE\_TB, ~~T~~the HE\_LTF\_TYPE parameter is set to 2xHE-LTF.
* If the FORMAT parameter is equal to EHT\_TB, the EHT\_LTF\_TYPE parameter is set to 2xEHT-LTF.
* The GI\_TYPE parameter is set to 1u6s\_GI.
* ~~The SPATIAL\_REUSE parameter is set to SRP\_AND\_NON-SRG\_OBSS\_PD\_PROHIBITED.~~
* The BSS\_COLOR parameter is set to the value indicated in the BSS Color subfield of the HE Operation element received from the RSTA.
* (#**2053**) The TXOP\_DURATION parameter is set as follows:
* If the FORMAT parameter is equal to HE\_TB, ~~T~~the TXOP\_DURATION parameter is set as defined in 26.11.5 (TXOP\_DURATION).
* If the FORMAT parameter is equal to EHT\_TB, the TXOP\_DURATION parameter is set as defined in 35.11.1.5 (TXOP\_DURATION). (#**1136**)