IEEE P802.11
Wireless LANs

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| LB279 Comment Resolution |
| Date: 2024-01-08 |
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Abstract

This submission proposes to address tCID 1163, changes are relative to Draft P802.11be\_D4.0, Draft P802.11REVme\_D4.2, and Draft P802.11bk D1.0.

Revisions:

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 TGax 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 TGaz 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** |
| **1163** | 24.19 | 9.4 | "For 320MHz max R2I and max I2R Nss fields are added for 320MHz. Fields other than Nsts may be requiredPlease review and add other fields" | as in comment | **Revised**TGbk editor, make the changes identified in document<https://mentor.ieee.org/802.11/dcn/24/11-24-0271-00-00bk-lb279-comment-resolution-cid-1163.docx> |
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1. ***Discussion:***
2. Due to the large memory required to process 320 MHz LTFs, propose to add separate constraints on LTF-Repetitinos and Total LTF for 320 MHz.
3. ***TGbk Editor: Change clause 9.4 (p.24 in 11bk D1.0) as follows:***

The format of the 320 MHz Ranging subelement is as shown in Figure [9-1001bba](file:///C%3A%5CUsers%5Cnxf57284%5CDocuments%5CIEEE%5CDraft%20P802.11bk_D1.0.docx#F09o1001bba) (320MHz Ranging subelement format).

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  | B0 B7 | B8 B15 | B16 B18 | B19 B21 | B22 | B23 | B24 B39 |
|  | Subelement ID | Length | Max R2I Nss  | Max I2R Nss  | Puncturing Pattern Support | Rsvd. | Puncturing Pattern |
| Bits: | 8 | 8 | 3 | 3 | 1 | 1 | 16 |
|  | B40 B42 | B43 B45 | B46 B47 | B48 B49 | B50 B55 |  |  |
|  | Max R2I Repetition | Max I2R Repetition | Max R2I LTF Total | Max I2R LTF Total | Rsvd. |  |  |
| Bits: | 3 | 3 | 2 | 2 | 6 |  |  |

1. Figure 9-1001bba —320 MHz Ranging subelement format

The Subelement ID and Length fields are defined in 9.4.3 (Subelements).

The Max R2I Nss field indicates the maximum number of spatial streams to be used in an R2I NDP for 320 MHz PPDU bandwidth transmission.

The Max I2R Nss field indicates the maximum number of spatial streams to be used in an I2R NDP for 320 MHz PPDU bandwidth transmission.

The Puncturing Pattern Support field is set to one to indicate support of all valid puncturing patterns as listed in Table 36-30 (Definition of the Punctured Channel Information field in the U-SIG for an EHT MU PPDU using non-OFDMA transmissions); it is set to zero to indicate support of only the subset of puncturing patterns defined in Table 11-14aa (Subset of puncturing patterns in 320MHz Ranging when Puncturing Pattern Support field set to 0).

The Puncturing Pattern field is used by the RSTA to convey the Disabled Subchannel Bitmap to the ISTA in the IFTM frame. It is reserved when included in the IFTMR frame by the ISTA.

The Max R2I Repetition field indicates the maximum number of LTF repetitions that the RSTA uses in the preamble of an R2I NDP for 320 MHz PPDU bandwidth transmission; the subfield is set to the number of LTF repetitions minus 1.

The Max I2R Repetition field indicates the maximum number of LTF repetitions that the ISTA uses in the preamble of an I2R NDP for 320 MHz PPDU bandwidth transmission; the subfield is set to the number of LTF repetitions minus 1.

The Max R2I LTF Total and Max I2R LTF Total fields indicate the maximum number of EHT-LTFs to be destined to an ISTA in the R2I NDP and an RSTA in an I2R NDP respectively for 320 MHz PPDU bandwidth transmission. The encoding is given in Table [9-322h23fc](#T09o322h23fc) (Max R2I/I2R LTF Total subfields). The maximum number of EHT-LTFs limits the allowed combinations of number of spatial streams and LTF repetitions.

1. ***TGbk Editor: Change clause*** ***11.21.6.3.3 (p.26 in 11bk D1.0) as follows:***

To request a 320 MHz FTM session, an ISTA shall include a 320 MHz Ranging subelement together with the Ranging Parameters element in the IFTMR frame and set the Format and Bandwidth subfield to a value of 5 or less. In the subelement:

* The Max R2I Nss field is set to the maximum number of spatial streams the ISTA is capable of receiving in the R2I NDP for 320 MHz bandwidth minus 1.
* The Max I2R Nss field is set to the maximum number of spatial streams the ISTA is capable of transmitting in the I2R NDP for 320 MHz bandwidth minus 1.
* The Puncturing Pattern Support field is set to 1 to indicate support of all puncturing patterns, or it is set to 0 to indicate support of only the subset of puncturing patterns defined in Table 11-14aa (Subset of puncturing patterns in 320 MHz Ranging when Puncturing Pattern Support field set to 0).
* Maximum number of LTF repetitions it is capable of receiving in the preamble of the R2I NDP for 320 MHz bandwidth, in the Max R2I Repetition field.
* Maximum number of LTF repetitions it is capable of transmitting in the preamble of the I2R NDP for 320 MHz bandwidth, in the Max I2R Repetition field.
* Maximum number of LTFs in total it is capable of receiving for 320 MHz bandwidth, including all repetitions, in the R2I NDP, in the Max R2I LTF Total field.
* Maximum number of LTFs in total it is capable of transmitting for 320 MHz bandwidth, including all repetitions, in the I2R NDP, in the Max I2R LTF Total field.

***TGbk Editor: Change clause 11.21.6.3.3 (p.27 in 11bk D1.0) as follows:***

If the Format and Bandwidth subfield in the IFTM frame is set to 8, the RSTA shall include a Ranging Parameters element with a 320MHz Ranging subelement. In the 320 MHz Ranging subelement:

* The Max R2I Nss field is set to either the maximum number of spatial streams it is capable of transmitting in the R2I NDP for 320 MHz bandwidth minus 1, or the value in the corresponding IFTMR frame, whichever is smaller (referred to as RSTA Assigned R2I Nss = 320 MHz).
* The Max I2R Nss field is set to either the maximum number of spatial streams it is capable of receiving in the I2R NDP for 320 MHz bandwidth minus 1, or the value in the corresponding IFTMR frame, whichever is smaller (referred to as RSTA Assigned I2R Nss = 320 MHz).
* The Puncturing Pattern Support field is set to 1 to indicate support of all puncturing patterns, or it is set to 0 to indicate support of only the subset of puncturing patterns defined in Table 11-14aa (Subset of puncturing patterns in 320 MHz Ranging when Puncturing Pattern Support field set to 0).
* If the RSTA has included the Disabled Subchannel Bitmap subfield in the EHT Operation element, the Puncturing Pattern field is set to the same value; otherwise the Puncturing Pattern field is set to 0xffff.
* In the Max R2I Repetition field, it assigns the maximum number of LTF repetitions in the preamble of the R2I NDP for this session (referred to as RSTA Assigned R2I Rep = 320 MHz). This value shall not be greater than the value in the corresponding IFTMR frame.
* In the Max I2R Repetition field, it assigns the maximum number of LTF repetitions in the preamble of the I2R NDP for this session (referred to as RSTA Assigned I2R Rep = 320 MHz). This value shall not be greater than the value in the corresponding IFTMR frame.
* In the Max R2I LTF Total field, either the maximum number of LTFs in total it is capable of transmitting to this ISTA, including LTF repetitions, in the R2I NDP, or the value in the corresponding IFTMR frame, whichever is smaller (referred to as RSTA Assigned R2I LTF Total = 320 MHz).
* In the Max I2R LTF Total field, either the maximum number of LTFs in total it is capable of receiving, including LTF repetitions, in the I2R NDP, or the value in the corresponding IFTMR frame, whichever is smaller (referred to as RSTA Assigned I2R LTF Total = 320 MHz).