IEEE P802.11Wireless LANs

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| Proposed Resolutions to Miscellaneous CIDs of 11az SAB1 Part 2 |
| Date: 2022-04-04 |
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Abstract

This submission proposes the resolutions to 11az SAB1 CID- 7204, 7205, 7284, and 7288.

The page and line numbers refer to those in 11az Draft 4.1 [1].

**Introduction**

This submission proposes the resolutions to 11az SAB1 CID- 7204, 7205, 7284, and 7288.

The page and line numbers refer to those in 11az Draft 4.1 [1].

**Comments:**

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| CID | Page/Line | Clause | Comment | Proposed change | Resolution |
| 7204 | P154/L03 | 11.21.6.4.3.3 | "The number of LTF repetitions in the R2I Rep subfield shall be set to a value not to exceed the RSTA Assigned R2I Rep, for the correponding ISTA." Please clarify in the STA Info field for different users, the value for the R2I Rep shall be the same when secure LTF is not used. | As in comment. | Revised. Agree with the commenter. However, the group discussed this comment, and concluded that, when secure HE-LTF is not used, 11az\_D4.1 already implies that the R2I Rep shall be the same for different users. TGaz editor: there is no spec change needed.  |
| 7205 | P46/L01 | 9.3.1.19 | "I2R Rep" in STA Info field fomat in the Raniging NDPA shall be specified as "reserved" for TB ranging, because I2R Rep is included in TF\_sounding for TB ranging. | As in comment. | Revised. Agree with the commenter. When considering this comment, TGaz agrees that I2R N\_STS shall also be reserved in the Ranging NDPA for TB ranging. TGaz editor: please incorporate the text change in this document (22/671r0) with tag (# 7205). <https://mentor.ieee.org/802.11/dcn/21/11-22-0671-00-00az-proposed-resolutions-to-miscellaneous-CIDs-of-11az-SAB1-Part2.docx> |
| 7284 | P132/L22 | 11.21.6.3.3 | "When an ISTA has included the Secure LTF subelement in the Ranging Parameters element in its 22 IFTMR frame and sets the value of the Secure LTF Required field to 1, the ISTA shall set the Max 23 R2I Rep and Max I2R Rep subfields to a value greater than 0, and both RSTA Assigned R2I Rep 24 and RSTA Assigned I2R Rep shall be greater than 0." Should be in subclause 11.21.6.3.4 | as per comment | Revised. The 11az\_D4.0 text that the commenter refers to is already modified in 11az\_D4.1. However, agree with the commenter that the text relevant only to secure HE-LTF can be moved from 11.21.6.3.3 to 11.21.6.3.4. TGaz editors: please incorporate the text changes shown in this submission (22/671r0) with tag (#7284)<https://mentor.ieee.org/802.11/dcn/21/11-22-0671-00-00az-proposed-resolutions-to-miscellaneous-CIDs-of-11az-SAB1-Part2.docx> |
| 7288 | P134/L31 | 11.21.6.4.3.3 | "When the Secure LTF Required subfield of the Ranging Parameters field is equal to 1, the RSTA 31 shall set the Max R2I Rep subfield to a value equal to the corresponding value in the IFTMR frame, 32 and the RSTA shall set the Max I2R Rep subfield to a value greater than 0 and less than or equal 33 to the corresponding value in IFTMR frame." - no technical resason to require > 0 value; also should be in 11.21.6.3.4 if needed | remove or move to section on secure LTF | Revised. The 11az group discussed the mandating of repetition when using Secure HE-LTF several times, and the agreement within the group was that repetition shall be used in a secure HE-LTF session.The 11az\_D4.0 text that the commenter refers to is already modified in 11az\_D4.1. However, agree with the commenter that the text relevant only to secure HE-LTF can be moved from 11.21.6.3.3 to 11.21.6.3.4. TGaz editors: please incorporate the text changes shown in this submission (22/671r0) with tag (#7288)<https://mentor.ieee.org/802.11/dcn/21/11-22-0671-00-00az-proposed-resolutions-to-miscellaneous-CIDs-of-11az-SAB1-Part2.docx> |

**Proposed resolution**

***TGaz Editors: Change the text in 9.3.1.19, page 46, line 21 - 23 as follows: (# 7205)***

When used as part of the 11.21.6.4.3 (TB ranging measurement exchange) the LTF Offset, R2I N\_STS and R2I Rep subfields are used to indicate the following R2I NDP’s HE-LTF configuration; see 27.3.18b (HE TB Ranging NDP), and the I2R N\_STS subfield and the I2R Rep subfield are reserved.

* + - * 1. **Negotiation for TB and non-TB ranging measurement exchange**

 ***TGaz Editors: delete the text in 11.21.6.3.3, P132 Line 18-21 as follows: (# 7284, 7288)***

***TGaz Editors: delete the text in 11.21.6.3.3 P134 Line 35-40 as follows: (# 7284, 7288)***

***TGaz Editors: insert the new text in 11.21.6.3.4 as follows: (# 7284, 7288)***

* + - * 1. **Negotiation for secure LTF in the TB and non-TB ranging measurement exchange (#1817, #1818, #1824, #2321)**

…

When an ISTA has included the Secure LTF subelement in the Ranging Parameters element in its IFTMR frame and set the value of the Secure LTF Required field to 1, the RSTA shall assign a secure LTF measurement exchange mode with the ISTA. (#**5042**)

When an ISTA has included the Secure LTF subelement in the Ranging Parameters element in an IFTMR frame, then to assign a secure LTF measurement exchange mode with the ISTA, an RSTA with dot11SecureLTFImplemented equal to true shall include a Secure LTF subelement in the Ranging Parameters element in an IFTM and set its Secure LTF Required field to 1. (#**3620**)

 When an ISTA has included the Secure LTF subelement in the Ranging Parameters element in its IFTMR frame and sets the value of the Secure LTF Required field to 1, the ISTA shall set the Max R2I Repetition and Max I2R Repetition subfields to a value greater than 0.

When an RSTA assigns a secure HE-LTF measurement exchange by including a Secure LTF subelement in the Ranging Parameters element in its IFTM frame and setting the Secure LTF Required subfield to 1, the RSTA shall set the *RSTA Assigned R2I Rep* to the Max R2I Repetition subfield value in the IFTMR frame which shall be greater than 0, and the RSTA shall set *RSTA Assigned I2R Rep* to a value greater than 0 and less than or equal to the Max I2R Repetition subfield value in the IFTMR frame, where the *RSTA Assigned R2I Rep* and *RSTA Assigned I2R Rep* specify the number of HE-LTF repetitions in the preamble of the R2I and I2R NDP for this session, respectively. (#**7346**)

When an ISTA has included Secure LTF subelement in the Ranging Parameters element in the IFTMR frame, it shall indicate to the RSTA a request to use the optional frequency domain Tx window in the R2I NDPs by setting the R2I Tx Window field to 1, otherwise shall set it to 0; and indicate its support of the optional frequency domain Tx window in the I2R NDPs by setting the I2R Tx Window field to 1, otherwise shall set it to 0. (#**5088**, #**5175**, #**5193**, #**5454**)

**References**

[1] IEEE P802.11az™/D4.1, Draft Standard for information technology – Telecommunications and information exchange between systems Local and metropolitan area networks – Specific requirements, Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications, Amendment 4: Enhancements for positioning