IEEE P802.11  
Wireless LANs

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| CR on HE-SIG-B part 2 | | | | |
| Date: 2018-01-15 | | | | |
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Abstract

This submission shows

* Resolution for a comment received from TGax comment collection (TGax Draft D2.0)
* The proposed changes are based on 11ax D2.0.

The submission provides resolutions to comments related to HE-SIG-B field.

* The submission provides resolutions to 9 CIDs:   
  13368, 11408, 13465, 13466, 14076, 13369, 11409, 14077, 11410

Revisions:

* Rev 0: Initial version of the document.

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| **CID** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 13368 | 423.00 | The notion of "channel 1 occupies the tones" is misleading as HE-SIG-B does not use the tone map. Similar issue exists for the 160MHz part on the same page. | 28.3.10.8.2-28.3.10.8.3 is worth re-structuring to make it more clear and consistent | Revised  Agreed in principle.  Corresponding descriptions on both 80MHz and 160MHz are modified to make it clear.  TGax Editor: make changes according to this document 11-18-0051-00-00ax CR on HE-SIG-B part 2. |
| 11408 | 423.01 | "HE-SIG-B content channel 1 occupies the tones [-500:-259]". The statement is incorrect, it confuse the HE-SIGB content channel location ( 1st and 2rd 20MHz channel) with the locations of the RU that these content channel carry. There are many samilar error statements in this subclause. | as in the comment | Revised.  Same resolution to CID 13368.  TGax Editor: make changes according to this document 11-18-0051-00-00ax CR on HE-SIG-B part 2. |
| 11410 | 423.54 | "HE-SIG-B content channel 1 occupies subcarriers [-1012:-771]". The statement is incorrect, it confuse the HE-SIGB content channel location ( 1st and 2rd 20MHz channel) with the locations of the RU that these content channel carry. | as in the comment | Revised.  Same resolution to CID 13368.  TGax Editor: make changes according to this document 11-18-0051-00-00ax CR on HE-SIG-B part 2. |
| 13465 | 423.09 | Change "between" to "in the range of" | See comment | Revised  Agreed in principle.  “between” is replaced with “in the range” to be consistent through this sub-clause.  TGax Editor: make changes according to this document 11-18-0051-00-00ax CR on HE-SIG-B part 2. |
| 14076 | 423.25 | This paragraph is still referring to 80 MHz HE PPDU, but that is not clear because this is a new paragraph. | Clarify that this paragraph is still specific to 80 MHz HE MU PPDU only. | Revised  Agreed in principle.  To make it clear, each paragraph nows marks “the 80MHz PPDU” and apply the same clarification to the paragraph involved in “the 160MHz PPDU”  TGax Editor: make changes according to this document 11-18-0051-00-00ax CR on HE-SIG-B part 2. |
| 13466 | 423.25 | Sentence "The same value for the bit signaling presence of the center 26-tone RU is carried in both HE-SIG-B content channels." is absolutely not clear. Rephrase to make it clear. | Clarify | Revised  Agreed in principle.  In order to clarify, the original text is replaced with “Each signaling for the presence of the User field corresponding to a center 26-tone RU of the 80MHz PPDU carries the same value in both HE-SIG-B content channels.”  TGax Editor: make changes according to this document 11-18-0051-00-00ax CR on HE-SIG-B part 2. |
| 14077 | 423.29 | What does "is carried as the last User field in theThe User Specific field of an HE-SIG-B content channel consists of one or more HE-SIG-B content channel 1." mean? | Clarify the meaning of "is carried as the last User field in theThe User Specific field of an HE-SIG-B content channel consists of one or more HE-SIG-B content channel 1." | Revised.  Agreed in principle.  Irrelevant sentences are mixed up only to make it nonsense.  It needs to say below.  When assigned, the User field corresponding to the center 26-tone RU that spans subcarriers [-16:-4, 4:16] is carried as the last User field in the HE-SIG-B content channel 1.  TGax Editor: make changes according to this document 11-18-0051-00-00ax CR on HE-SIG-B part 2. |
| 11409 | 423.29 | "last User field in theThe User Specific field of an HE-SIG-B content channel consists of one or more ..". Wrong sentence with grammar errror | as in the comment | Revised.  Same resolution to CID 14077.  TGax Editor: make changes according to this document 11-18-0051-00-00ax CR on HE-SIG-B part 2. |
| 13369 | 423.29 | It seems to say: "is carried as the last User field in the User Specific field of an HE-SIG-B content channel" | Revise as suggested | Revised.  Same resolution to CID 14077.  TGax Editor: make changes according to this document 11-18-0051-00-00ax CR on HE-SIG-B part 2. |

***To TGax editor:*** ***P423L01*** *replace the current text with the proposed changes below.****------------- Begin Text Changes ---------------***

HE-SIG-B content channel 1 carries the RU allocation signaling for RUs whose subcarrier indices fall in the range [500:259] and is duplicated for RUs whose subcarrier indices fall in the range [17: 258] in the data portion of the frame. (#13368, #11408) HE-SIG-B content channel 2 carries the RU allocation signaling for RUs whose subcarrier indices fall in the range [258:17] and is duplicated for RUs whose subcarrier indices fall in the range [259: 500] in the data portion of the frame. (#13368, #11408) When an RU overlaps with more than one segment, it has an RU Allocation subfield for each of the segments with which it overlaps. (#8939)

The first HE-SIG-B content channel(#10060) appearing in the 20 MHz segments of the 80MHz PPDU carries a Common field(#10060) and User Specific field corresponding to RUs with(#Ed) subcarriers indices overlap those segments. The Common field(#10060) of HE-SIG-B content channel 1 contains the following: an RU Allocation subfield(#10061) for RUs with subcarrier indices in the range [500:259] or overlapping with [500:259] if the RU is larger than 242 subcarriers(#8941), followed by a second RU Allocation subfield(#10061) for RUs with subcarrier indices in the range [17:258] or overlapping with [17:258] if the RU is larger than 242 subcarriers and 1 bit Center 26-tone RU subfield to indicate the presence of the User field corresponding to the center 26-tone RU that spans subcarriers [16:4, 4:16]. (#13465, #14076)

(#8941)The second HE-SIG-B content channel(#10060) of the 80MHz PPDU carries a Common field(#10060) and User Specific field corresponding to RUs with subcarrier indices that fall in those segments(#Ed). The Common field(#10060) of HE-SIG-B content channel 2 contains the following: an RU Allocation subfield(#10061) for RUs whose subcarrier indices fall in the range [258:17] or overlapping with [258:17] if the RU is larger than 242 subcarriers(#8941), followed by a second RU Allocation subfield(#10061) for RUs with subcarrier indices in the range [259:500] or overlapping with [259:500] if the RU is larger than 242 subcarriers(#8941) and 1 bit Center 26-tone RU subfield to indicate presence of the User field corresponding to the center 26-tone RU that spans subcarriers [16:4, 4:16]. (#14076)

Each signaling for the presence of the User field corresponding to a center 26-tone RU of the 80MHz PPDU carries the same value in both HE-SIG-B content channels (#10060).(# 13466, #14076)When assigned, the User field corresponding to the center 26-tone RU that spans subcarriers [16:4, 4:16] is carried as the last User field in the HE-SIG-B content channel 1.(#14077, #11409, #13369).

(#8941)

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| Corresponding figure omitted |
| * Mapping of the two HE-SIG-B content channels and their duplication in an 80 MHz PPDU when the SIGB Compression field in the HE-SIG-A field of an HE MU PPDU is set to 0(#5272)(#5267) |

The 160 MHz PPDU contains two HE-SIG-B content channels each of which are duplicated four times as shown in Figure 28-29 (Mapping of the two HE-SIG-B content channels and their duplication in a 160 MHz PPDU when the SIGB Compression field in the HE-SIG-A field of an HE MU PPDU is set to 0). HE-SIG-B content channel 1 carries the RU allocation signaling for RUs whose subcarrier indices fall in the range (#Ed) [1012:771] and is replicated for RUs whose subcarrier indices fall in the range (#Ed) [495:254], [12:253] and [529:770] in the data portion of the frame. (#13368, #11410) HE-SIG-B content channel 2 carries the RU allocation signaling for RUs whose subcarrier indices fall in the range (#Ed) [770:529] and is replicated for RUs whose subcarrier indices fall in the range (#Ed) [253:12], [254:495] and [771:1012] in the data portion of the frame.(#8942) (#13368, #11410)

HE-SIG-B content channel 1 and HE-SIG-B content channel 2 of the 160 MHz PPDU carries RU allocation signaling at 242-tone RU granularity that overlap with the 20 MHz segments in which the content channels are carried (including duplication). The signaling for the presence of the User field corresponding to a center 26-tone RU in the 80 MHz segment with the lower subcarrier index is carried in HE-SIG-B content channel 1 as a 1-bit Center 26-tone RU field after the RU Allocation field in the Common field. Similarly, signaling for the center 26-tone RU in the 80 MHz segment with the higher subcarrier index is carried in HE-SIG-B content channel 2 as 1-bit Center 26-tone RU field after the RU Allocation field in the Common field. When assigned, the User field corresponding to the center 26-tone RU in the 80 MHz segments is carried as the last User field in their respective HE-SIG-B content channels. When RUs greater than 242 subcarriers are signaled in the RU Allocation field in a portion of the bandwidth, the signaling is carried in both HE-SIG-B content channels(#10060) placed in the order of the absolute subcarrier index.(#14076)

***------------- End Text Changes ---------------***