IEEE P802.11  
Wireless LANs

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| **TGbe LB271 Comment Resolutions on 9.4.1.71** |
| **Date:** 2023-03-10 |
| **Author(s):** |

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| **Name** | **Affiliation** | **Address** | **Phone** | **Email** |
| Jinyoung Chun | LG Electronics | 19, Yangjae-daero 11gil, Seocho-gu, Seoul 137-130, Korea |  | jiny.chun@lge.com |
| Dongguk Lim |  | dongguk.lim@lge.com |
| Eunsung Park |  | esung.park@lge.com |
| Jinsoo Choi |  | js.choi@lge.com |
| Insik Jung |  | insik0618.jung@lge.com |

Abstract

This submission proposes comment resolutions for 9 CIDs: 17499, 17494, 17495, 17496, 17497, 17498, 15001, 15359, and 17500

All the changes are based on P802.11be D3.0.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: CID 17494 and 17498 are deferred.
* Rev 2: CID 17494 and 17498 are resolved.
* Rev 3: some resolution wording is added.

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| **CID** | **Commenter** | **Category** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 17499 | Brian Hart | T | 211.63 | These two sentences from P212L63-P213L63 misuse "in case" and also are split in an unnatural location ("For >= 80, if all 1s, then X; otherwise Y in case 80 or 160. In case >160, then Z"). Use of articles could be improved too. | A better split is: "For >= 80, if all 1s, then X. Otherwise, if any zeros then Y if 80 or 160, else Z if >160". Accordingly try: "For an EHT NDP Announcement frame carried by a PPDU of bandwidth larger than or equal to 80 MHz, in each 80 MHz frequency subblock, if the Partial BW Info subfield indicates feedback for the entire 80 MHz (i.e., all the bits corresponding to the 80 MHz frequency subblock are set to 1), then compressed beamforming information related to subcarrier indices of the corresponding 996-tone RU is included in the feedback report. If the Partial BW Info subfield in each 80 MHz frequency subblock indicates feedback for a subset of the 80 MHz (i.e., some but not all of the bits corresponding to the 80 MHz frequency subblock are set to 1), then: \* compressed beamforming information related to the subcarrier indices of the 242-tone RU for each 20 MHz indicated by Partial BW Info subfield is included in the feedback report if the bandwidth of the EHT sounding NDP is 80 MHz or 160 MHz, and \* compressed beamforming information related to the subcarrier indices of the 484-tone RU for each 40 MHz indicated by Partial BW Info subfield is included in the feedback report if the bandwidth of the EHT sounding NDP is greater than 160 MHz." | Accepted  For editor’s convenience, the proposed text changes are below CID 17499 in 11-23/0367r1. |
| 17498 | Brian Hart | T | 212.59 | "subcarrier indices" are not included in the feedback report; quantized angles for these subcarrier indices are fedback. Also missing article. | Try "For an EHT NDP Announcement frame carried by a PPDU of bandwidth 20 MHz or 40 MHz, \*sounding\*feedback\* for \*the\* subcarrier indices of the 242-tone RU for each 20 MHz indicated in the Partial BW Info subfield is included in the feedback report." | Revised  Agree with the commenter and for the consistency with the below paragraph, ‘compressed beamforming information’ is better than ‘sounding feedback’.  Also, it’s suggested to change to ‘requested in the Partial BW Info subfield’ from ‘indicated in the Partial BW Info subfield’ in this subclause during joint session, and the related texts are changed as below.  *To editor*: The proposed text changes are below CID 17498 in 11-23/0367r3. |

***Proposed text change from P212L62 in 11be D3.0***

(#17498)For an EHT NDP Announcement frame carried by a PPDU of bandwidth 20 MHz or 40 MHz, compressed beamforming information related to the subcarrier indices of 242-tone RU for each 20 MHz requested in the Partial BW Info subfield is included in the feedback report.

(#17499)For an EHT NDP Announcement frame carried by a PPDU of bandwidth larger than or equal to 80 MHz, in each 80 MHz frequency subblock, if the Partial BW Info subfield requests feedback for the entire 80 MHz (i.e., all the bits corresponding to the 80 MHz frequency subblock are set to 1), then compressed beamforming information related to subcarrier indices of the corresponding 996-tone RU is included in the feedback report. If the Partial BW Info subfield in each 80 MHz frequency subblock requests feedback for a subset of the 80 MHz (i.e., some but not all of the bits corresponding to the 80 MHz frequency subblock are set to 1), then:

* compressed beamforming information related to the subcarrier indices of the 242-tone RU for each 20 MHz requested by Partial BW Info subfield is included in the feedback report if the bandwidth of the EHT sounding NDP is equal to 80 MHz or 160 MHz, and
* compressed beamforming information related to the subcarrier indices of the 484-tone RU for each 40 MHz requested by Partial BW Info subfield is included in the feedback report if the bandwidth of the EHT sounding NDP is equal to 320 MHz.

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| **CID** | **Commenter** | **Category** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 17494 | Brian Hart | T | 211.65 | "(in case of MRU the lowest frequency stands for the lowest frequency of first RU and the highest frequency stands for the highest frequency of the last RU) " is actually very confusing. The Tables do not shed any light either. | If the first RU is lowest in freq and the last RU is highest in freq then this explanation unnecessarily and confusinglyu introduces RU numbering in an MRU - just have "(including for MRUs, noting that tones between RUs in an MRU are not fed back)". If the first/last RU is not necessarily lowest/highest in freq then, a) provide a xref to where this is are explained and b) rewrite this: "... second by the numbering of each RU in the MRU and third by data and pilot subcarrier index in each RU from the lowest freq to the highest freq ..." | Revised  Agree with the commenter and after some discussion with members, the below text is suggested.  *To editor*: The proposed text changes are below CID 17494 in 11-23/0367r3. |

***Proposed text change from P211L61 in 11be D3.0***

The EHT Compressed Beamforming Report information contains the channel matrix elements indexed, first, by matrix angles in order shown in Table 9-71 (Order of angles in the compressed beamforming feedback matrix when used in a non-S1G band), and second, by data and pilot subcarrier index from the lowest frequency to the highest frequency for all the subcarrier indices that need to be fed back based on the Partial BW Info subfield and determined using Table 9-127b (Subcarrier indices when not all bits in Partial BW Info subfield corresponding to the 80 MHz frequency subblock are set to 1), Table 9-127c (Subcarrier indices when all bits in Partial BW Info subfield corresponding to the 80 MHz frequency subblock are set to 1 for Ng = 4), and Table 9-127d (Subcarrier indices when all bits in Partial BW Info subfield corresponding to the 80 MHz frequency subblock are set to 1 for Ng = 16). An explanation of how these angles are generated from the beamforming feedback matrix is given in 19.3.12.3.6 (Compressed beamforming feedback matrix), where is the is the number of columns in a compressed beamforming feedback matrix determined by the Nc Index subfield of the EHT MIMO Control field, and is the number of rows in a compressed beamforming feedback matrix determined by the Nr Index subfield of the EHT MIMO Control field.

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| **CID** | **Commenter** | **Category** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 17495 | Brian Hart | E | 212.43 | Spurious comma | Try "in the frequency order identified by the " | Accepted |
| 17496 | Brian Hart | T | 212.54 | "in which" is wrong. Fedback is not solicited in the RU/MRU; it is feedback for the (channel of the) RU/MRU. Also spurious article. | Try "for which feedback is solicited" | Accepted |
| 17497 | Brian Hart | E | 212.54 | Can't separate two verbs by a comma ("are set .... , see Table 9-45b") | Change to "... is solicited (see Table 9-45b)." or "... is solicited. See Table 9-45b." or "... is solicited; see Table 9-45b." | Revised  *To editor*: change the text in P212L54 as below:  “~ which the feedback is solicited (see Table 9-45b (Settings for BW, Partial Bandwidth Info subfield in the EHT NDP Announcement frame)).” |
| 15001 | Robert Stacey | T | 213.52 | The description in this NOTE could be clearer | Change to "NOTE---[x:Ng:y] denotes an algorithmic progression from x to y in increments of Ng, i.e., x, x + Ng, x + 2 Ng, ..., y.". Better yet, we might want to put this in 1.5. | Revised  Agree with the commenter and fix some typo in the suggested text.  To Editor: please change the NOTE as follows:  “NOTE– [x:Ng:y] denotes an arithmetic progression from x to y in increments of Ng, i.e., x, x + Ng, x+2Ng, …, y”. |
| 15359 | John Wullert | G | 214.55 | The note is so brief that it does not provide useful information. | Expand text of the note to clearly specify what "this" refers to and to spell out that Ns as number of subcarriers. | Revised  ‘This’ in the note means the pharagraph of P212L42 because it explain how the subcarrier indices are chosen for feedback. So let’s move the note below the paragraph.  *To Editor*: Move the note to P212 L52. |
| 17500 | Brian Hart | E | 215.13 | "0s" could be bits/bytes/words etc | "up to seven zero bits" | Revised  To Editor: change the text as below:  “Up to seven bits with the value zero” |