IEEE P802.11
Wireless LANs

|  |
| --- |
| CR for 38.3.15.9.6 User Specific Field – Part 1 on P802.11bn D0.1 |
| Date: 2025.04.06 |
| Author(s): |
| Name | Company | Address | Phone | email |
| Genadiy Tsodik | Huawei Technologies |  |  |  |
| Oded Redlich | Huawei Technologies |  |  |  |
| Hu Mengshi | Huawei Technologies |  |  |  |
| Edward Au | Huawei Technologies |  |  |  |
|  |  |  |  |  |

Abstract

This submission contains proposed comment resolutions to comments on P802.11bn D0.1.

22 out of 22 comments under 38.3.15.9.6 User Specific Field are resolved (CIDs: 41,42, 43, 44, 45, 46, 332, 377, 441, 1094, 1170, 1639, 1640, 1956, 2296, 2297, 2298, 3244, 3311, 3502, 3203, 3504)

|  |  |
| --- | --- |
| R0 | Initial revision |
| R1 | Minor change |
| R2 | Some changes |
| R3 | Changes are highlighted for the editor (no technical changes added) |
|  |  |
|  |  |

## CID 41

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 177.51 | 38.3.15.9.6 | Need to describe the usable values or Validate values in Co-BF, per motions #114 and #115. Add a new paragraph of "If the UL/DL Field in U-SIG is set to 0, the PPDU Type And Compression Mode Field in U-SIG is set to 2 and the Co-BF/Co-SR Indication Field in U-SIG is set to 0, values other than 0, 1 or 4 are Validate if the Number Of Non-OFDMA Users Field in UHR-SIG is set to 1, values other than 0 or 1 are Validate if the Number Of Non-OFDMA Users Field in UHR-SIG is set to 2, and values greater than 0 are Validate if the Number Of Non-OFDMA Users Field in UHR-SIG is set to 3." | Refer to the comment. | REVISEDChange the text as proposed under comment resolution of CID 3504 |

## CID 42

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 162.15 | 38.3.15.9.6 | Change "Set to 1" to "Set to 1 and treat as Disregard." | Refer to the comment. | REJECTEDThe subfield is named as Disregard, no need for any further instructions |

## CID 43

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 178.09 | 38.3.15.9.6 | Change the subfield name "Coding" to "Coding/BSS Color Indication". Revise the description of this field to reflect motion #214. | Refer to the comment. | REVISEDChange the text as proposed under comment resolution of CID 3504 |

## CID 44

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 178.21 | 38.3.15.9.6 | Per motion #214, the coding subfield doesn't always exist. Change "If the Coding subfield is equal to 1," to "If either the UL/DL field in the U-SIG field is set to 0, the PPDU Type And Compression Mode field in the U-SIG field is set to 2 and the Co-BF/Co-SR Indication field in the U-SIG field is set to 0, or the Coding subfield is equal to 1" | Refer to the comment. | REVISEDChange the text as proposed under comment resolution of CID 3504 |

## CID 45

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 178.37 | 38.3.15.9.6 | Remove the paragraph. Absorb this into the Spatial Configuration subfield description. | Refer to the comment. | REVISED Change the text as proposed under comment resolution of CID 3504 |

## CID 46

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 178.46 | 38.3.15.9.6 | This sentence/paragraph may be in the CoBF subclause but not in the UHR-SIG subclause. Absorb its info into the "Coding/BSS Color Indication" subfield. Remove the paragraph. | Refer to the comment. | REVISED Change the text as proposed under comment resolution of CID 3504 |

## CID 332

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 177.41 | 38.3.15.9.6 | Add new MCS values |   | REVISED Change the text as proposed under comment resolution of CID 3504 |

## CID 377

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 177.40 | 38.3.15.9.6 | "x1,x2,x3,x4" should be replaced as"17,19, 20, 23" according to Motion 195 | As in comment. | REVISED Change the text as proposed under comment resolution of CID 3504Note to the Editor: Same resolution as for CID 332 |

## CID 441

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 177.09 | 38.3.15.9.6 | should be modified based on Motion#214 | modify based on Motion#214 | REVISEDChange the text as proposed under comment resolution of CID 3504 Note to the Editor: Same resolution as CID 43 |

## CID 1094

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 177.40 | 38.3.15.9.6 | "x1,x2,x3, and x4" can be updated by "17, 19, 20, and 23" based on passed motion | Update to "17, 19, 20, and 23" | REVISEDChange the text as proposed under comment resolution of CID 3504 Note to the Editor: Same resolution as CID 332 |

## CID 1170

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 177.40 | 38.3.15.9.6 | Based on the motion 195, x1 to x4 in description of Table 38-29 should be updated. | As the comment. | REVISEDChange the text as proposed under comment resolution of CID 3504 Note to the Editor: Same resolution as CID 332 |

## CID 1639

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 178.47 | 38.3.15.9.6 | Define User field for Co-BF transmission | as in comment | REVISED Definitions for Co-BF incorporated in User Specific Field for MU-MIMO Change the text as proposed under comment resolution of CID 3504 |

## CID 1640

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 178.47 | 38.3.15.9.6 | Define User field for co-SR transmission, at least refer to non-MU-MIMO user field | as in comment | REVISEDChange the text as proposed under comment resolution of CID 3745 |

## CID 1956

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 177.58 | 38.3.15.9.6 | "MU-MIMO user field for Co-BF transmission" need to be defined in the spec text | As the comment | REVISED Definitions for Co-BF incorporated in User Specific Field for MU-MIMO Change the text as proposed under comment resolution of CID 3745 |

## CID 2296

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 177.40 | 38.3.15.9.6 | Replace MCS values x1, x2, x3 and x4 with the value passed in PHY motion 195. | As in comment | REVISEDChange the text as proposed under comment resolution of CID 3504 Note to the Editor: Same resolution as CID 332 |

## CID 2297

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 178.16 | 38.3.15.9.6 | "If the value of STA-ID subfield matches the user'sSTA-ID, the Reserved subfield is Validate. If the value of STA-ID subfield does not match the user's STA-ID, the Reserved subfield is Disregard." This subfield name is "Coding" not "Reserved". Please separate the two sentences into two paragraphs, and rephrase as "If the value of STA-ID subfield matches the user's STA-ID and RU size is larger than 242, the reserved bit is Validate". "If the value of STA-ID subfield does not match the user's STA-ID, all values are Disregard." | As in comment | REVISEDChange the text as proposed under comment resolution of CID 3504  |

## CID 2298

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 178.38 | 38.3.15.9.6 | Delete "The encoding table will be the same as that in HE." since it already says that "The Spatial Configuration field in User field of UHR-SIG field in PPDUs for Co-BF transmission re-usesthe same design as in UHR DL MU-MIMO" and B16-B19 in Table 38-29 states that it use Table 27-31 for Spatial Configurration subfield encoding. | As in comment | REVISEDChange the text as proposed under comment resolution of CID 3504 Note to the Editor: Same resolution as CID 45 |

## CID 3244

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 176.34 | 38.3.15.9.6 | In UEQM patterns, BPSK is not used but there is no normative text about that. (The Note on P176L40 suggeests that, but it is not normative.) | Please add the corresponding normative text (e.g., "BPSK modulation shall not used for UEQM pattern." "The minimum EEQM pattern number among streams shall be 1 or more." or something like that.) | REVISEDChange the text as proposed under comment resolution of CID 3504  |

## CID 3311

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 176.45 | 38.3.15.9.6 | Add some clarification text specifying that inTable 38-28 - UEQM pattern subfield encoding, all the modulation order >=1 (QPSK). And for all the streams the modulation order and coding rate shall be a valid MCS defined in UHR. | as in comment | REVISEDChange the text as proposed under comment resolution of CID 3504 Note to the Editor: Same resolution as CID 3244 |

## CID 3502

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 177.40 | 38.3.15.9.6 | Replace placeholders in Table 38-29 with new MCS values per motion 195 | Table 38-29: In the Description of MCS subfield, replace "x1, x2, x3 and x4" with "17, 19, 20 and 23" | REVISEDChange the text as proposed under comment resolution of CID 3504 Note to the Editor: Same resolution as CID 332 |

## CID 3503

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 177.33 | 38.3.15.9.6 | Minimum RU/MRU size for MU-MIMO in UHR is 484+242 | Table 38-29: In the description of "STA-ID" subfield, replace "An RU/MRU using MU-MIMO has RU/MRU size greater than or equal to 242 tones" with "An RU/MRU using MU-MIMO has RU/MRU size greater than or equal to 242+484 tones" | REVISEDChange the text as proposed under comment resolution of CID 3504  |

## CID 3504

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 178.09 | 38.3.15.9.6 | Table 38-29: Coding bit in the User field for an MUMIMO allocation is repurposed in the case of a CoBF transmission to resolve the BSS color (Motion 214) | Modify the description of Coding subfield (B21) in Table 38-29 as follows:For a non-Co-BF transmission:It indicates whether BCC or LDPC is used:Set to 0 for BCC.Set to 1 for LDPC.If the RU size is larger than 242, this bit is reserved andset to 1. If the value of STA-ID subfield matches the user'sSTA-ID, the Reserved subfield is Validate. If the valueof STA-ID subfield does not match the user's STA-ID,the Reserved subfield is Disregard.For a Co-BF transmission:It indicates which BSS the User field belongs to:Set to 0 to indicate that the User field belongs to the first coordinated BSS, indicated by the "BSS Color" subfield of U-SIG,Set to 1 to indicate that the User field belongs to the second coordinated BSS, indicated by the "BSS Color 2" subfield of U-SIG. | REVISEDChange the text as proposed under comment resolution of CID 3504 Note to the Editor: Same resolution as CID 43 |

***TGbn editor: Please do the following changes to the text in the subclause 38.3.15.9.6 of the 802.11bn draft:***

***Please do the following change to the text prior to the table 38-28***

NOTE – The modulation order from the first to the sixth corresponds to QPSK, 16-QAM, 64-QAM, 256- QAM, 1024-QAM, and 4096-QAM.

BPSK modulation shall not be used in UEQM.

***Please do the following change in the table 38-27***

###### Table 38-27—User field format for a non-MU-MIMO allocation or Co-SR allocation

***Please do the following change in the table 38-29***

###### Table 38-29—User field format for an MU-MIMO allocation or Co-BF allocation

|  |  |  |  |
| --- | --- | --- | --- |
| **Bit** | **Subfield** | **Number of bits per subfield** | **Description** |
| B0-B10 | STA-ID | 11 | Set to a value of the TXVECTOR parameter STA-ID (see 37.z (TBD) (STA\_ID)).NOTE—An RU/MRU using MU-MIMO has RU/ MRU size greater than or equal to 242+484 tones. Thus, the STA ID subfield is not set to 2046 for an MU-MIMO RU allocation (see 38.3.14.9.3 (Common field for OFDMA transmission)). |
| B11-B15  | MCS | 5 | Indicates the following modulation and coding scheme:Set to n for UHR-MCS n, where n = 0,1,…,13, 17, 19, 20 and 23. If the value of STA-ID subfield matches the user’s STA-ID, other values are Validate. If the value of STA-ID subfield does not match the user’s STA-ID, all values are Disregard. |
| B16-B19 | Spatial Configuration  | 4 | Indicates the number of spatial streams for a user in an MU-MIMO allocation (see Table 27-31 (Spatial Configuration subfield encoding(11ax))).The Spatial Configuration field in the User field of the UHR-SIG field in PPDUs for Co-BF transmission reuses the same design as in UHR DL MU-MIMO.If STA-ID matches, the values that are reserved or do not exist in Table 27-31 (Spatial Configuration subfield encoding(11ax)) are Validate. If STA-ID does not match, all values are DisregardIf the UL/DL Field in U-SIG is set to 0 and the PPDU Type And Compression Mode Field in U-SIG is set to 2 and the Co-BF/Co-SR Indication Field in U-SIG is set to 0:1. If the Number of Non-OFDMA Users Field in UHR-SIG is set to 1, the values 3 and 5-7 are Validate
2. If the Number of Non-OFDMA Users Field in UHR-SIG is set to 2, the values 2-7 are Validate
3. If the Number of Non-OFDMA Users Field in UHR-SIG is set to 3, the values 1-7 are Validate
 |
| B21 | Coding/BSS Color Indication | 1 | If the UL/DL Field in U-SIG is set to 0 and the PPDU Type And Compression Mode Field in U-SIG is set to 2 and the Co-BF/Co-SR Indication Field in U-SIG is set to 1, it indicates whether BCC or LDPC is used:Set to 0 for BCC. Set to 1 for LDPC.If the value of STA-ID subfield matches the user’s STA-ID and the RU size is larger than 242, this bit is set to 1 and Validate If the value of STA-ID subfield does not match the user’s STA-ID, the subfield is Disregard.If the UL/DL Field in U-SIG is set to 0 and the PPDU Type And Compression Mode Field in U-SIG is set to 2 and the Co-BF/Co-SR Indication Field in U-SIG is set to 0, it indicates whether the STA ID indicated in the User Field belongs to BSS Color or BSS Color 2 as indicated in 38.3.15.7 U-SIGSet to 0 to indicate that the User field belongs to the first coordinated BSS, indicated by the "BSS Color" subfield of U-SIG,Set to 1 to indicate that the User field belongs to the second coordinated BSS, indicated by the "BSS Color 2" subfield of U-SIG. |