IEEE P802.11  
Wireless LANs

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| SB0 CID 10153 and others | | | | |
| Date: 2013-04-29 | | | | |
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Abstract

Addressing CIDs 10153, 10150, 10152, 10019, 10021, 10020, 10009, 10066, 10047, 10289, 10257, 10258, 10262, 10267 of TGac SB0.

**Revision Notes**

**R0:**

Initial

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| **CID** | **Commenter Name** | **P.L** | **SC** | **Comment** | **Proposed Change** | **Resolution** |
| 10153 | Adachi, Tomoko | 43.18 | 8.2.4.7.1 | From the table, one can see that the VHT PPDU is the only one that has different policy on data unit sizes for A-MSDU size and MPDU size. Overlooking the table, It seems better to unify the policy. | Make the MPDU size of the VHT PPDU constrained by the maximum A-MSDU size. | Reject – the VHT Capabilities element defines a maximum MPDU length, so this becomes the constraint. HT defined a maximum A-MSDU length and that is why the constraint is reversed for HT vs VHT. Changing the table would require changing the definitions of a field in the VHT capabilities element and probably a lot of references to that field and the question becomes – why should it be changed? It is not clear what rationale supports the suggested change or what benefit there would be if the change were made. |

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| 10150 | Adachi, Tomoko | 36.49 | 8.2.4.6.1 | The description of the VHT field seems to be missing. | Add the description of the VHT field. | Revise – generally agree with the commenter, TGac editor to make changes shown in 11-13-0686r0 under the heading for CID 10150, 10009, 10066 |
| 10009 | Iwaoka, Mitsuru | 36.49 | 8.2.4.6.1 | There is no description about VHT subfield which is defined as B0 of HT Control field in Figure 8-5. | Insert the following description of VHT subfield after p.36 line 63.  ----- proposed text ----- The VHT subfield of the HT Control field indicates whether the format of the HT Control field is the HT variant or the VHT variant as defined in Table 8-6a.  Table 8-6a --VHT subfield values Value Description 0 HT Control filed format is HT variant 1 HT Control filed format is VHT variant | Revise – generally agree with the commenter, TGac editor to make changes shown in 11-13-0686r0 under the heading for CID 10150, 10009, 10066 |
| 10066 | Schelstraete, Sigurd | 36.64 | 8.2.4.6.1 | There is no description of the new VHT subfield | Add new paragraph after line 63: "The VHT subfield controls which variant of the HT Control Middle subfield is used. When the value is 1, the HT Control Middle field uses the HT variant format. Otherwise, the HT Control Middle field uses the VHT variant format."  NOTE: In HT, this value was previously "reserved". I'm assuming that means value 1. If not, the above needs to change accordingly. | Revise – generally agree with the commenter, TGac editor to make changes shown in 11-13-0686r0 under the heading for CID 10150, 10009, 10066 |

**CID 10150, 10009, 10066**

**Discussion**

As indicated in the comment, the description for the VHT field is missing.

**Proposed Resolution:**

***TGac editor, change the following text of TGac D5.0 as shown:***

***Insert the following after the 3rd paragraph:***

The HT Control field has two forms, the HT variant and the VHT variant. The two forms differ in the format of the HT Control Middle subfield, described in 8.2.4.6.2 (HT variant) for the HT variant and in 8.2.4.6.3 (VHT variant) for the VHT variant and in the value of the VHT subfield.

The VHT subfield of the HT Control field indicates whether the HT Control Middle subfield is the VHT Variant or the HT Variant. The VHT subfield is set to 1 to indicate that the HT Control Middle subfield is the VHT Variant and is set to 0 to indicate that the HT Control Middle subfield is the HT Variant.

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| 10152 | Adachi, Tomoko | 43.04 | 8.2.4.7.1 | What is "DU"? Its definition seems to be missing. And this is the only place that it appears, weak in explaining the significance of defining such abbreviation. | Change the title of Table 8-13c to "Maximum data unit sizes (in octets) and durations (in microseconds) per PPDU format". | Accept – noting that when the table title is changed, the references to the table should also automatically change. |

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| **CID** | **Commenter Name** | **P.L** | **SC** | **Comment** | **Proposed Change** | **Resolution** |
| 10019 | Iwaoka, Mitsuru | 117.31 | 8.6.1 | According to IEEE Std 802.11ad-2012, field MPDU length filed in MPDU delimiter is 13bit long for DMG STA. Definition of MPDU length field in Figure 8-505a1 and equation (8-4) does not describe MPDU length filed in a DMG PPDU. | Change the title of Figure 8-505 to "MPDU delimiter" (Delete "(non-DMG)"), and add instruction as "Remove the Figure 8-505a and Table 8-282a". Change the description of MPDU Length field as following (line 1 to 32 of p.118).  --- proposed text --- The format of the MPDU Length field is shown in Figure 8-505a1. The MPDU Length Low subfield contains the 12 low order bits of the MPDU length. In a VHT or DMG PPDU, the MPDU Length High subfield contains the two high order bits of the MPDU length. In an HT PPDU, the MPDU Length High subfield is reserved.  The MPDU length value is derived from the MPDU Length field subfields as follows: LMPDU = Llow + Lhigh x 4096, VHT or DMG PPDU  Llow, HT PPDU (8-4)  where Llow is the value of the MPDU Length Low subfield Lhigh is the value of the MPDU Length High subfield NOTE--The format of the MPDU Length field maintains a common encoding structure for VHT, HT and DMG PPDUs. For HT PPDUs only the MPDU Length Low subfield is used, while for VHT or DMG PPDUs both subfields are used. For DMG PPDUs the highest bit is always set to 0. | Reject – there are two figures and two descriptions – the 11ac draft only modifies one of the figures and the text accompanying that figure – the other figure and text remains untouched and therefore, the DMG case is still completely and correctly described after including the 11ac proposed amendment changes to the baseline draft. |

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| 10289 | Hunter, David | 117.63 | 8.6.1 | Development history should not be present in an IEEE standard. In addition, per the IEEE Style Manual, NOTEs in tables need to be located in separate cell at the bottom of the table. | Replace this NOTE in this cell with "(see NOTE below)" and in a new cell across the bottom of the table put: "NOTE--The ASCII value of the character 'N' was chosen as the unique pattern for the value in the Delimiter Signature field." | Revise – delete the NOTE. |

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| 10021 | Iwaoka, Mitsuru | 119.09 | 8.6.3 | Definition of "user" and description in 4.3.10a (p.10, line 58-60) imply that a VHT MU PPDU contains only individually addressed MPDUs. Though, there is no explicit description to inhibit transmission of group addressed MPDUs in VHT MU PPDU. | Add following condition to 8.6.3 A-MPDU contents (after p.119 line. 9).  --- proposed text --- A VHT MU PPDU does not carry an A-MPDU containing an MPDU with a group addressed RA. | Reject – The inferred implication is not readily apparent and subclause 9.12.4 includes the following language: *A STA that is neither an AP nor a mesh STA shall not transmit an A-MPDU containing an MPDU with a group addressed RA. NOTE—An HT AP and an HT mesh STA can transmit an A-MPDU containing MPDUs with a group addressed RA. NOTE 2—As a VHT STA is an HT STA, NOTE 1 also applies to VHT APs and VHT mesh STAs.* - Also note that the format of a VHT MU PPDU is simply a collection of AMPDUs, so the AMPDU language sufficienctly describes the conditions for a VHT MU PPDU. |

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| 10020 | Iwaoka, Mitsuru | 118.51 | 8.6.3 | The modified first paragraph of 8.6.3 does not describe A-MPDU use in a DMG PPDU. | Change the first paragraph of 8.6.3 as following.  --- proposed text --- In a non-DMG PPDU, an A-MPDU is a sequence of A-MPDU subframes carried in a single PPDU with one of the following combinations of RXVECTOR or TXVECTOR parameter values: -- The FORMAT parameter set to VHT -- The FORMAT parameter set to HT\_MF or HT\_GF and the AGGREGATION parameter set to 1  In a DMG PPDU, An A-MPDU is a sequence of MPDUs carried in a single PPDU with the TXVECTOR/RXVECTOR AGGREGATION parameter set to 1. | Accept – tgac editor to make the changes proposed by the commenter. |

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| 10047 | Vlantis, George | 43.04 | 8.2.4.7.1 | The unit of size and duration is missing. | Add them. | Reject – the table title indicates the units applicable for each item in the table. |

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| 10257 | Hunter, David | 44.31 | 8.2.5.2 | "frames always use" is just a weak attempt at sneaking a normative statement into an informative clause. | Delete "always". If a normative statement is desired, place it in an appropriate normative location, such as clause 9. | Reject – 101 baseline instances of the use of “always” can’t be wrong – two of them right here in the same paragraph in sentences which are exactly parallel in structure to the one cited! |
| 10258 | Hunter, David | 44.61 | 8.2.5.2 | "The estimated duration for a ... frame response": What is the duration of a frame response? Is it the amount of time required for the response frame to be received (i.e., the time between the first signal and the last signal of the PPDU that contains the response frame? Or is this not a duration (the time it takes for something to complete) but a delay (the time between events)? | If this "duration" is the time it takes for a process (such as receipt of a frame) to take place, then explain exactly what process has this duration. If it is an interval between the transmission and response, then name it "delay", or something else that is more appropriate than "duration". | Revise – generally agree with the commenter, TGac editor to make changes shown in 11-13-0686r0 under the heading for CID 10258 |

**CID 10258**

**Discussion**

The commenter is correct in that the language should be made clearer. Note that the language throughout the subclause refers to “time” not “duration” and the phrase “time for the transmission of” is common in the subclause. The proposed resolution is modelled on the existing baseline language and repeats the phrase that is used in the modified language of the TGac draft, i.e. “the estimated time for the transmission of . . . [a] feedback response frame” – that phrase is used in the description of the determination of the value to place into the Duration field and it deserves to be repeated in the cited text.

**Proposed Resolution:**

Revise.

***TGac editor to make the following changes to 8.2.5.2:***

The estimated time for the transmission of a VHT Compressed Beamforming response frame is determined by assuming that:

— All feedback segments (see 9.31.5 (VHT sounding protocol)) are transmitted, even if a Beamforming Report Poll frame is used and not all the bits in the Feedback Segment Retransmission Bitmap field therein are equal to 1.

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| 10262 | Hunter, David | 45.51 | 8.3.1.4 | Where is "non-bandwidth signaling TA" defined in the text? Remember that the 3.1-3.3 definitions are not the real definitions, but only copies that are placed up front for convenience. The full definitions need to stated directly in the text. | Insert the definition into a separate paragraph at line 50: " A non-bandwidth signaling TA is an address in the TA field of an MPDU in which the Individual/Group bit is 0." | Revise – TGac editor to use the existing “individual address of the STA” as the opposite term, as indicated in 8.2.4.3.8 TA field by modifying the text in CTS 8.3.1.3 CTS frame format to read as follows: - *is set to the individual address of the STA that transmitted the immediately previous RTS frame to which the CTS is a response, by copying the value of the TA field of the RTS frame with the Individual/Group bit forced to the value 0 –* and by modifying the text in 8.3.1.4 ACK frame format to read as follows: *is set to the individual address of the STA that transmitted the frame to which the ACK is a response, by copying the value of the TA field of that frame with the Individual/Group bit forced to the value 0* |
| 10267 | Hunter, David | 49.22 | 8.3.2.2 | Why is 11ac inserting a note about DMG STAs and Mesh Data frames? In addition, why is this material in a NOTE? It appears to be normative material. | Either delete this NOTE (because it is out of scope of the 11ac amendment) or at least delete the "NOTE--", as this is an informative statement that is typical of main text statements. | ? |

**Discussion**

I am puzzled.

Here is the cited text:

***Insert the following NOTE below Figure 8-33 (A-MSDU Subframe structure for Mesh Data):***

NOTE—A DMG STA does not send Mesh Data frames, and all other STAs have a maximum MSDU size of 2304 octets (see Table 8-13c (Maximum DU sizes (in octets) and durations (in microseconds) per PPDU format)).

**Proposed Resolution:**

0686

**References:**