IEEE P802.11
Wireless LANs

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| CRC Comment Resolutions for 11bd D4.0 Clause 32.2 |
| Date: 2022-05-11 |
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Abstract

This submission provisions with resolutions to the following 8 SA Ballot CIDs for sub-clause 32.2 and 1 CIDs for sub-clause 31.2.1 in IEEE P802.11bd D4.0, including suggested spec text modification to the latest revision of IEEE P802.11bd.

* CIDs: 5007, 5020, 5035, 5069, 5070, 5072, 5074, 5076, 5085

Revisions:

* R0, comment resolutions initial draft.
* R1, update resolution to 5074 and correct some typos.

Interpretation of a Motion to Adopt

A motion or majority supported straw poll to approve this submission means that the editing instructions and any changed or added material are actioned in the TGbd Draft. When the baseline spec draft is an unapproved version, a majority supported straw poll to approve this submission means that the editing instructions and any changed or added material are actioned in the unapproved TGbd Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbd Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGbd Editor: Editing instructions preceded by “TGbd Editor” are instructions to the TGbd editor to modify existing material in the TGbe draft. As a result of adopting the changes, the TGbd editor will execute the instructions rather than copy them to the TGbd Draft.***

***Comments for clause 32.2.2: 3 comments***

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| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Pg/Ln** | **Cat.** | **Clause** | **Comment** | **Proposed Changed** | **Resolution** |
| 5007 | 75.47 | T | 32.2.2 | Change "PSDU\_LENGTH" to "APEP\_LENGTH" because PDSU\_LENGTH (shown on P74L33) is not a TXVECTOR parameter but APEP\_LENGTH. | As in comment | **Accepted** |
| 5020 | 73.47 | T | 32.2.2 | Just say "The allowed value are 1 or 2" is confusing. | Change to "The allowed value: Set to 0 to indicate the number of spatial streams is one; Set to 1 to indicate the number of spatial streams is two. " | **Accepted** |
| 5035 | 73.26 | T | 32.2.2 | The description of "NGV\_LTF\_TYPE" value definition does not match the definition in NGV-SIG. Suggest to unify the definition. | Change the definition to "Set to 0 to indicate NGV-LTF-2x is used in the transmitted PPDU. Set to 1 to indicate NGV-LTF-1x is used in the transmitted PPDU." | **Accepted** |
| 5069 | 78.41 | T | 32.2.5.2 | The phrase "...but with the CHANNEL WIDTH parameter discarded from PHYCONFIG\_VECTOR…" appears confusion. The parameter CHANNEL\_WIDTH is not included in NGV PHYCONFIG\_VECTOR defined in 32.2.3. | Add CHANNEL\_WIDTH back to PHYCONFIG\_VECTOR in 32.2.3. Please note that VHT PHYCONFIG\_VECTOR includes CHANNEL\_WIDTH. | **Revised****Discussion:**Agree with the comment that the NGV PHYCONFIG\_VECTOR doesn’t contain CHANNEL\_WIDTH. In fact, the NGV PHYCONFIG\_VECTOR contains “OPERATING\_CHANNEL” and “SECONDARY\_CHANNEL\_OFFSET”. But it’s not proper to add CHANNEL\_WIDTH parameter back. A proposed change is to replace “CHANNEL\_WIDTH” with “SECONDARY\_CHANNEL\_OFFSET”**Instruction to TGbd Editor:**Please replace “…but with the CHANNEL WIDTH parameter discarded…” with “…but with the SECONDARY\_CHANNEL\_OFFSET parameter discarded…” at pg78/ln41. |
| 5070 | 77.12 | E | 32.2.5.1 | The phrase "Clause 32 Transmit Procedure" appears to be the label of the outer dotted box. Should move it to the bottom edge of the box to avoid confusing with the vertical arrow line. The inner dotted box "Clause 17 Transmit Procedure" should not include "32.3.9.10 and 32.3.9 Non-NGV duplicate PPDU." Suggest making them two separate boxes. Also, "and 32.3.9" should be removed. | As in comment | **Revised****Discussion:**Agree on the comment that the location of the phrase “Clause 32 Transmit Procedure” could be moved to a better place to avoid confusing with the arrow. But the assignee believes it’s “32.3.9.10” to be removed instead of “32.3.9” because the box addressed is to cover the non-NGV duplicate PPDU which is explained over the whole sub-clause 32.3.9. The assignee doesn’t agree to separate the box marked “32.3.9” from the box marked “Clause 17 Transmitting Procedure” because the bigger box is to indicate the transmitting procedure is based on clause 17 but with non-NGV duplicate PPDU format defined in clause 32.3.9. **Instruction to TGbd Editor:**Please move the label “Clause 32 Transmit procedure” to the bottom of the dot-lined box to avoid any confusing with any arrow. And please remove “32.3.9.10” from the solid-lined box inside the dot-lined box labeled with “Clause 17 Transmit procedure”. |
| 5072 | 75.29 | T | 32.2.2 | Clause 17 is the core of 11p (WAVE). Although the parameter TIME\_OF\_DEPARTURE\_REQUESTED appears in several clauses, Table 17-1 should be a better pointer in the context of V2X. | Change Table 19-1 to Table 17-1. | **Revised****Discussion:**Agree on the comment that Table 19-1 is not a good reference for NGV TXVECTOR parameters. Table 17-1 is a better reference when same parameters are defined for NGV as for Non-NGV format. A minor change to the original proposed change is that the title of Table 17-1 is “TXVECTOR parameters” and it should be optional for TXVECTOR and N for RXVECTOR.**Instruction to TGbd Editor:**Please incorporate the proposed modification as part of resolution to CID 5072 in document 11-22/0817r1. |
| 5074 | 74.36 | T | 32.2.2 | The sentence "The value of 0 indicates an NGV ranging NDP." can be removed because PSDU\_LENGTH is not a TXVECTOR parameter. | As in comment | **Rejected****Reason:**The parameter PSDU\_LENGTH is used to indicate to the RX MAC an NDP is received when PSDU\_LENGTH is equal to 0. A similar statement to APEP\_LENGTH has been added as resolution to CID 5075. |
| 5076 | 73.26 | T | 32.2.2 | In TXVECTOR (Table 32-1), the parameter NGV\_LTF\_TYPE is defined as Set to 0 to indicate NGV-LTF-1x is used in the transmitted PPDU. Set to 1 to indicate NGV-LTF-2x is used in the transmitted PPDU. But, in NGV\_SIG field (Table 32-10), B10 (on P96L31) says Set to 0 for NGV-LTF-2x Set to 1 for NGV-LTF-1x Such reversed assignment may introduce confusion unless there is a rationale not currently shown in the two tables. | Please clarify the reversed assignment. If it's a typo, please correct it. If it is intentional with a reason, please add a note to B10 in Table 32-10. | **Revised****Discussion:**Agree on the comment that the inconsistent description may cause confusion to potential readers. Similar issue is addressed in CID 5035 as well. The addressed issue could be resolved with implementation of resolution to CID 5035.**Instruction to TGbd Editor:**No further modification is needed. |
| 5085 | 61.33 | T | 31.2.1 | It seems odd that "Rules for determining the PPDU type to be used in transmissions by NGV STAs are outside the scope of this standard" can be true for a standard that defines PHY layer and MAC sub-layer, thus when and which PPDUs are transmitted, but if that's what is meant, it raises a question of how this is controlled by the entity that is out of scope of this standard. At some point the PHY has to know what PPDU type to transmit. So this note must be wrong: the rules for determining the PPDU type to be transmitted MUST be part of this standard! I find some rules here and there for example in 31.5 I find some rules for what PPDU type is transmitted via the MAC data service parameters. What may or may not be meant is that this is controlled via the MAC service or other mechanisms exposed to the higher layer and the setting of those parameters is out of scope? But this is clearly out of scope of this standards (the scope of which is PHY layer and MAC sublayer as defined in the base standard). | Delete the note. | **Revised****Discussion:**Agree on the comment that the addressed statement is not 100% in consistence with sub-clause 31.5 that “when a member in radio environment request vector represents ‘selection within MAC sublayer’ , the NGV STA shall select the related member value by itself. While there’s no valid discussion why the first sentence of the note should be deleted. So it’s preferred to keep the first sentence of the note.**Instruction to TGbd Editor:**Please delete “Rules for determining the PPDU type to be used in transmissions by NGV STAs are outside the scope of this standard” from the note at pg61/ln33. . |
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*-----------------------****Proposed Spec Text Modifications for CID 5072****--------------------------*

***TGbd Editor: please implement following proposed modification to Table 32-1 (TXVECTOR and RXVECTOR parameters) in sub-clause 32.2.2 (TXVECTOR and RXVECTOR parameters) in IEEE P802.11bd D4.0 as proposed below as part of resolution to CID 5072.***

**32.2.2 TXVECTOR and RXVECTOR parameters**

……

**Table 32-1 -- TXVECTOR and RXVECTOR parameters**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Condition** | **Value** | **TXVECTOR** | **RXVECTOR** |
|  | ... | ... |  |  |
| TIME\_OF\_DEPARTURE\_REQUESTED |  | ~~See corresponding entry in Table 19-1 (TXVECTOR and RXVECTOR parameters)~~Enumerated type:true indicates that the MAC entity requests that the PHY entity measuresand reports time of departure parameters corresponding to the time whenthe first frame energy is sent by the transmitting port. false indicates thatthe MAC entity requests that the PHY entity neither measures nor reportstime of departure parameters. *[CID# 5072]* | O | N |
| ... | ... | ... |  |  |

-------------------- ***End of proposed changes for resolution to CID 5072****--------------------------*

**References:**

1. **IEEE P802.11bd/D4.0, March 2022.**