IEEE P802.11  
Wireless LANs

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| LB254 Comment Resolution for 11bd D2.0 Clause 31.4 and 32 | | | | |
| Date: 2021-11-09 | | | | |
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Abstract

This submission discusses resolutions to the following 2 CIDs from WG LB 254 of TGbd D2.0 related to Clause 31.4 and 32.

Th CID list is: 2166, 2281

Proposed changes in this document are with reference to TGbd D2.1.

Revisions:

* Rev 0: Initial version of the document
* Rev 1: Removed N/A option from CFNTB as in 11az D4.0
* Rev 2:
  + Added short discussion w.r.t CID 2166
  + added NGVM4.2 and changed NGV5 to NGVP4.3 to align resolution with 11-21/1434r2

Proposed comment resolution

Presented and discussed, no open discussion points

Under discussion

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 2166 | 59.42 | Subclause 31.4 defines optional features for NGV such as NGV ranging based on non-TB ranging, FTM outside the 5.9 GHz band, or FTM outside the 5.9 GHz band with PASN. However, no corresponding entries in the Tables in Annex B exist. Please add corresponding entries into the Tables in Annex B. | as in comment | Revised  Agree with the comment.  After reviewing Annex B of 802.11-2020 and 11az D4.0, CFNTB and NGPM4.1 are updated to include in the status column CFNGV. Further, NGVM4.2 and NGVP4.3 are introduced for NGV ranging in the 5.9 GHz frequency band and for NGV ranging NDP.  **TGbd editor:**  Please incorporate the changes in <https://mentor.ieee.org/802.11/dcn/21/11-21-1790-02-00bd-lb254-comment-resolution-for-11bd-d2-0-clause-31-4-and-32.docx> |
| 2281 | 93.47 | "DCM and BPSK modulation". The terminology varies quite a bit throughout the draft. In several other sections (for example, 32.3.11-1-4), it's "BPSK modulation with DCM". It would be clearer to adopt a single term. | Change "DCM and BPSK modulation" to "BPSK modulation with DCM". | Revised  As proposed by CID 2064 and 802.11be D1.1 all occurences are replaced with “BPSK-DCM”  Similar comments 2064, 2282  **TGbd editor:**  Please see CID 2064 |

Add text

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# Discussion

For 11bd D2.0, we agreed to the following:

1. An NGV STA may support non-TB ranging in the 5.9 GHz band.
2. If an NGV STA supports non-TB ranging in the 5.9 GHz band, it shall use NGV ranging NDPs.
3. An NGV STA may be co-located with a STA that may supports FTM outside the 5.9 GHz band.

Point three is mainly covered by 11az D4.0 as well as NGVM4 and NGVM4.1 (see [11-21-1434/r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1434-02-00bd-some-clause-b4-comment-resolutions-for-lb-254.docx))

The following proposed resolution is addressing points one and two.

# Proposed resolution:

***Change the table in B.4.3 as follows (not all rows are shown):***

**B4.3 IUT configuration**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | IUT configuration | References | Status | Support |
| CFNTB | Support for FTM Non TB sounding | 11.21.6.4.4 (Non-TB ranging measurement exchange) | CFHE:O  CFNGV:O | Yes □ No □ |

***Change the table in B.4.37 as follows (not all rows are shown):***

**B.4.37 Next Generation Positioning (Ranging) features**

**B.4.37.1 NGP MAC Features**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Protocol capability | References | Status | Support |
| NGPM4.1 | non-TB ranging exchange | 11.21.6.4.4 (non-TB ranging measurement exchange) | CFNTB:M (CFHE or CFNGV):M | Yes □ No □ N/A □ |

***Add at the end of table in B.4.38.1 a new row as follows:***

**B.4.38 NGV features**

**B.4.38.1 NGV MAC features**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Protocol capability | References | Status | Support |
| NGVM4.2 | Support for NGV ranging in the 5.9 GHz frequency band | 31.4 (NGV ranging) | (CFNGV AND CFNTB):O | Yes □ No □ N/A □ |

***Add at the end of table in B.4.38.2 a new row as follows:***

**B.4.38.2 NGV PHY features**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Protocol capability | References | Status | Support |
| NGVP4.3~~5~~ | NGV ranging NDP | 32.3.15 (NGV Ranging NDP) | NGVM4.2:M ~~CFNTB:M~~ | Yes □ No □ N/A □ |