IEEE P802.11Wireless LANs

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| Proposed Resolutions to Several 11bk LB286 Comments | | | | |
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Abstract

This submission proposes the resolutions to a few 11bk LB286 comments.

The page and line numbers refer to those in 11bk\_D2.0 [1].

**Introduction**

This submission proposes the resolutions to 11bk LB286 CIDs 2060, 2061, 2133, 2134 and 2106.

The page and line numbers refer to those in 11bk\_D2.0 [1].

**Comment:**

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| CID | Commenter | Page.  Line | Clause | Comment | Proposed change | Resolution |
| 2060 | Yanjun Sun | 40.07 | 11.21.6.4.3.4 | It is unclear what're the BSS\_COLOR and STA\_ID settings in the LMR frames in HE/EHT PPDUs, especially for unassociated STA. Please help clarify. The same comment applies to 11.21.6.4.4.3 for Non-TB ranging and 11.21.6.4.8.4 for passivng TB ranging. | As in comment | Revised.  Agree with the commenter in principle, and text clarification is needed.  TGbk editor: Please incorporate the proposed text change tagged with 2060 in this document. |
| 2061 | Yanjun Sun | 76.02 | 11.21.6.4.8.4 | It is unclear what PPDUs are allowed to carry the Primary and Secondary RSTA Broadcast Passive TB Ranging Measurement Report frames. Due to its broadcast nature, the "MU" flavor of HE/EHT PPDUs doesn't look to provide technical advantage to the "SU" flavor of them, so it may help reduce complexity by leaving out the "MU" flavor. In addition, as the frames are both for associated and unassociated STAs, the settings of the BSS\_COLOR and STA\_ID is unclear. Please help clarify | As in comment | Revised.  Agree with the commenter in principle, and text clarification is needed.  TGbk editor: Please incorporate the proposed text change tagged with 2061 in this document. |
| 2133 | Qi Wang | 82.27 | 11.21.6.4.8.4 | "The passive TB ranging measurement reporting follows the same rules and procedures for the  measurement reporting for TB ranging described in 11.21.6.4.3.4 (TB ranging Measurement Sounding phase), unless explicitly stated otherwise." For passive TB Ranging sequence (polling, measurement and reporting), it is unclear what PPDU types, BSS\_Color and AID/RSID are used for trigger ranging poll, passive ranging sounding trigger, NDPA and NDPs. | Please clarify and specify the behavors. | Revised.  Agree with the commenter in principle, and text clarification is needed.  TGbk editor: Please incorporate the proposed text change tagged with 2133 in this document. |
| 2134 | Qi Wang | 83.14 | 11.21.6.4.8.4 | "The RSTA shall send the Primary and Secondary RSTA Broadcast Passive TB Ranging Measurement Report frames, the Primary a SIFS time after receiving the ISTA Passive TB Ranging Measurement Report frames from the ISTA and the Secondary a SIFS following the Primary; see  Figure 11-70 (Passive TB ranging measurement reporting phase)." It is unclear what PPDUs, BSS Color and AID/RSID are used to transmit these Primary and Secondary RSTA Broadcast Passive TB Ranging Measurement Report frames. | Please clarify and specify the behavors. | Revised.  Agree with the commenter in principle, and text clarification is needed.  TGbk editor: Please incorporate the proposed text change tagged with 2134 in this document. |
| 2106 | Mark RISON | 84.17 | 11.21.6.4.8.4 | "The Secondary RSTA Broadcast Passive TB Ranging Measurement Report frame shall contain the 18 following:  19 -- ISTA Passive TB Ranging Measurement Reports: see 9.6.7.52 (Secondary RSTA 20 Broadcast Passive TB Ranging Measurement Report frame format)." -- is this a change to what 9.6.7.52 says the frame shall contain? If so, it's inconsistent. If not, it's useless | Delete the cited text | Reject.  The cited text provides a high level description of the content of the Secondary RSTA Broadcast Passive TB Ranging Measurement Report frame, and is needed before the text providing for the link for the frame details. |

**11.21.6.4.3 TB ranging measurement exchange**

**11.21.6.4.3.1 General**

**…**

***TGbk editor: Please change the 11bk\_D2.0 (P37 L26 to P38 L16) as shown below.* (#2060, 2133)**

Within each availability window, an RSTA shall use an AID or Ranging Session ID (RSID) to identify an associated or unassociated ISTA respectively. The AID and RSID assignment shall be nonconflicting and shall have the same size and valid address space (as defined in 9.4.1.8 and 26.17.4). The RSID usage shall follow the same rules as that of AIDs for HE operations. The RSIDs are assigned to unassociated ISTAs during the FTM negotiation; see 11.21.6.3 (FTM procedure negotiation).

NOTE: For an HE PPDU or an EHT PPDU addressed to an unassociated STA, the STA\_ID, if needed, is set to RSID, and the BSS\_COLOR parameter of the PPDU is set to the value indicated in the BSS Color subfield of the HE Operation element transmitted by the RSTA. (#2060, 2133)

An RSTA shall follow the rules defined in 26.5.2 (UL MU Operation) or 35.5.2 (EHT UL MU operation) when transmitting any Trigger frames of variant Location for TB ranging with the following rules, and the following rules also apply to the transmission of a Ranging NDP Announcement frame (#2060, 2133)

:

— A Ranging Trigger frame and a Ranging NDP Announcement frame may be carried in an non-HT Duplicate PPDU.

— A Ranging Trigger frame and a Ranging NDP Announcement frame shall be carried in an S-MPDU if the Ranging Trigger frame is carried in a VHT PPDU or, HE SU PPDU, or EHT PPDU that is an EHT SU transmission.

— An RSTA shall not transmit a Ranging Trigger frame or a Ranging NDP Announcement frame in a VHT MU PPDU ~~or~~, HE MU PPDU, or EHT MU PPDU that is not an EHT SU transmission.

NOTE: A Trigger Ranging frame is either a Sounding Ranging Trigger frame or a Passive Ranging Sounding Trigger frame.

**11.21.6.4.4 Non-TB ranging measurement exchange**

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***TGbk editor: Please change the 11bk\_D2.0 (P46 L38 to P47 L13) as shown below.* (#2060, 2133)**

**11.21.6.4.4.1 General**

In ~~N~~non-TB ranging, the protocol operates in an ISTA centric scheduling FTM mode; whenever the medium is available, an ISTA may initiate the measurement. The RSTA can only limit the frequency with which the ISTA can initiate measurements, by setting a minimum time interval between subsequent range measurements.

The PPDU selection for the Ranging NDP Announcement frame used in the non-TB ranging follows the same rules as defined for TB ranging in 11.21.6.4.3.1. (#2060, 2133)NOTE: For an HE PPDU or an EHT PPDU addressed to an unassociated STA, the STA\_ID, if needed, is set to RSID, and the BSS\_COLOR parameter of the PPDU is set to the value indicated in the BSS Color subfield of the HE Operation element transmitted by the RSTA. (#2060, 2133)

**11.21.6.4.8.4 Passive TB ranging measurement reporting phase**

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***TGbk editor: Please add the new text after P83 L17 of 11bk\_D2.0 as shown below.***

The RSTA shall send the Primary and Secondary RSTA Broadcast Passive TB Ranging Measurement Report frames, the Primary a SIFS ~~time~~ after receiving the ISTA Passive TB Ranging Measurement Report frames from the ISTA and the Secondary a SIFS following the Primary; see Figure 11-70 (Passive TB ranging measurement reporting phase).

The Primary RSTA Broadcast Passive TB Ranging Measurement report frame and the Secondary RSTA Broadcast Passive TB Ranging Measurement report frame shall be carried in a non-HT (Duplicated) PPDU, or an S-MPDU if they are carried in a VHT PPDU or, HE SU PPDU, or EHT PPDU that is an EHT SU transmission. An RSTA shall not transmit a Primary RSTA Broadcast Passive TB Ranging Measurement report frame or a Secondary RSTA Broadcast Passive TB Ranging Measurement report frame in a VHT MU PPDU, HE MU PPDU, or EHT MU PPDU that is not an EHT SU transmission. (#2061, 2134)

**References**

[1] IEEE P802.11bk™/D2.0, Draft standard for information technology – Telecommunications and information exchange between systems local and metropolitan area networks – Specific requirements Part 11: Wireless LAN medium access control (MAC) and physical layer (PHY) specifications,

Amendment 3: 320MHz positioning