IEEE P802.11
Wireless LANs

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| Proposed resolution for CIDs for 27-2-2-Part 2 |
| Date: 2018-11-15 |
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Abstract

This submission proposes resolutions for multiple comments related to TGax D3.0 subclause 27.2.2 with the following CIDs :

15908,16932

Revisions:

Rev 0: Initial version of the document.

Rev1: Modifications based on offline discussion

Rev2: Add tracking number of CID on change text and revision descriptions

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGax Draft. This introduction is not part of the adopted material.

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

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

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| **CID** | **commenter** | **Section** | **Pg / Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 15908 | Liwen Chu | 27.2.2 | 254.27 | BSS color 0 should not be treated as intra-BSS PPDU. Otherwise the Duration will be ignord by the following HE TB transmission. | As in the comment | RevisedAgree with the comment. As the commenter pointed out that BSS color 0 should not be treated as intra-BSS so that intra-BSS NAV will not be set and therefore the NAV will not be ignored by the following HE TB transmission. On the other hand, BSS color 0 should not be treated as inter-BSS either because spatial reuse should not be applied on this PPDU. Therefore BSS color 0 shall not be classified as either intra-BSS or inter-BSS and the basic NAV shall be set. TGax editor please make the changes as shown in 11-18/1969r2 |
| 16932 | Xiaofei Wang | 27.2.2 | 253.64 | Is the phrase " with the RXVECTOR parameter BSS\_COLOR not equal to 0" necessary? I would imagine that being a HE STA associated with a non-HE AP and receiving a HE PPDU is sufficient to classify the packet as inter-BSS PPDU. | Remove the phrase " with the RXVECTOR parameter BSS\_COLOR not equal to 0" | RevisedIn current spec, “A non-AP HE STA that transmits an HE SU PPDU or HE ER SU PPDU to a STA that is not a member of the transmitting STA's HE BSS, shall set the TXVECTOR parameter BSS\_COLOR to 0. ” For example, a public action frame might have BSS\_COLOR set to 0.Based on the above discussion for CID 15908, if an HE STA associated with a non-HE AP and receiving a HE PPDU with BSS\_COLOR equal to 0 from an HE STA not belonging to the same BSS, the PPDU shall not be classified as either intra-BSS or inter-BSS PPDU. So here " with the RXVECTOR parameter BSS\_COLOR not equal to 0” is necessary to avoid the PPDU with BSS-COLOR equal to 0 be classified as an inter-BSS PPDU .Also, for a HE STA associated with a non-HE AP, it can set up one or more TDLS links with the peer STAs and the color for the TDLS link can be any color except 0. Therefore an HE STA associated with a non-HE AP and receiving a HE PPDU with the RXVECTOR parameter BSS\_COLOR not equal to the color of its TDLS links shall classify the PPDU as inter-BSS PPDU. TGax editor please make the changes as shown in 11-18/1969r2 |

* **Intra-BSS and inter-BSS frame determination**

TGax Editor: Please replace the paragraphs (pg 264, line 56in D3.2) in this section as follows:

**27.2.2 Intra-BSS and inter-BSS PPDU classification (#17132)**

A STA shall classify a received PPDU as an inter-BSS PPDU if at least one of the following conditions is true:

— The RXVECTOR parameter BSS\_COLOR is not 0 and is not the BSS color of the BSS of which the STA is a member.

— The PPDU is an HE PPDU with the RXVECTOR parameter BSS\_COLOR not equal to 0 and not equal to the BSS color of any TDLS links the STA belongs to (#16932) and the STA is an HE STA associated with a non-HE AP.

— The PPDU is a VHT PPDU with RXVECTOR parameter PARTIAL\_AID not equal to the BSSID[39:47] of the BSS with which the STA is associated or any of the other BSSs in the same multiple BSSID set or co-located BSSID set to which its BSS belongs and the RXVECTOR parameter GROUP\_ID is 0.

— The PPDU is a VHT PPDU with RXVECTOR parameter PARTIAL\_AID[5:8] not equal to the 4 LSBs of the BSS color(#15907, #16182) announced by the BSS of which the STA whose dot11PartialBSSColorImplemented is equal to true is a member and RXVECTOR parameter GROUP\_ID equal to 63 when the Partial BSS Color field in the most recent HE Operation element is 1.

— The PPDU is either a VHT MU PPDU or an HE MU PPDU with the RXVECTOR parameter UPLINK\_FLAG equal to 0 and the STA is an AP.

— The PPDU carries a frame that has a BSSID field, the value of which is not the BSSID of the BSS with which the STA is associated or any of the other BSSs in the same multiple BSSID set or colocated BSSID set to which its BSS belongs or the wildcard BSSID(#17062).

— The PPDU carries a frame that does not have a BSSID field but has both an RA field and TA field, neither value of which is equal to the BSSID of the BSS with which the STA is associated or any of the other BSSs in the same multiple BSSID set or co-located BSSID set to which its BSS belongs. The Individual/Group bit in the TA field value is forced to 0 prior to comparison.

A(#16934) STA shall classify the received PPDU as an intra-BSS PPDU if at least one of the following conditions is true:

— The RXVECTOR parameter BSS\_COLOR of the PPDU carrying the frame is ~~0 or~~ the BSS color of the BSS of which the STA is a member or the BSS color of any TDLS links that the STA belongs to if the STA is an HE STA associated with a non-HE AP (#15908, #16932).

 — The PPDU is a VHT PPDU with RXVECTOR parameter PARTIAL\_AID equal to the BSSID[39:47] of the BSS with which the STA is associated or any of the other BSSs in the same multiple BSSID set or co-located BSSID set to which its BSS belongs and the RXVECTOR parameter GROUP\_ID equal to 0.

— The PPDU is a VHT PPDU with RXVECTOR parameter PARTIAL\_AID[5:8] equal to the 4 LSBs of the BSS color(#15907, #16182) announced by of the BSS of which the STA whose dot11PartialBSSColorImplemented is equal to true is a member, the RXVECTOR parameter GROUP\_ID is equal to 63 and the Partial BSS Color field in the most recent HE Operation element is 1.

— The PPDU carries a frame that has an RA, TA or BSSID field value that is equal to the BSSID of the BSS or the BSSID of any BSS with which the STA is associated or any of the other BSSs in the same multiple BSSID set or co-located BSSID set to which its BSS belongs. The Individual/Group bit in the TA field value is forced to the value 0 prior to the comparison.

— The PPDU carries a Control frame that does not have a TA field and that has an RA field value that matches the saved TXOP holder address of the BSS or any BSS with which the STA is associated or any of the other BSSs in the same multiple BSSID set or co-located BSSID set to which its BSS belongs.

NOTE—See 10.20 (Group ID and partial AID in VHT and CMMG PPDUs) for the definition of PARTIAL\_AID[5:8] and BSSID[39:47].

Otherwise, the PPDU cannot be determined as an intra-BSS or inter-BSS PPDU.

If the received frame satisfies both intra-BSS and inter-BSS conditions by using the MAC address, the received frame have to be classified into an intra-BSS frame.(#17062)

(#15727)If the received frame satisfies the intra-BSS conditions using the RXVECTOR parameter BSS\_COLOR and also satisfies the inter-BSS conditions using MAC address information, then the classification made using the MAC address information takes precedence (#15728, #15669).

**27.11.4 BSS\_COLOR**

TGax Editor: Please add the paragraphs (pg 368, line 51 in D3.2) in this section as follows:

An HE STA associated with a non-HE AP shall use the same active BSS color for all its TDLS links. (#16932)