### IEEE P802.11 Wireless LANs

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| 11ax D3.0 MAC Comment Resolution for Multiple BSSID | | | | |
| Date: 2018-09-05 | | | | |
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Abstract

This submission proposes resolutions for comments of TGax Draft D3.2 with the following CIDs:

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Clarifty that the HE Beacon is transmitted with 20 MHz bandwidth
* Rev 3: Revise according to D3.2 and add note based on offline discussion

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 D3.0 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGax D3.0 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** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 16588 | Po-Kai Huang | 209.02 | 10.7.5.1 | 6 GHz band is enabled for 11ax AP and non-AP STA. In 6 GHz band, there is no non-HE STA, and transmission of beacon frame with non-HT format is then not a requriement, and enabling beacon transmission with HE SU PPDU format is then possible. HE SU PPDU maybe transmitted with larger MPDU content and higher data rate. These features are beneficial because when multiple BSSID concept is used larger MPDU content is reuqired for carrying all nontransmitted BSSID profiles, and higher data rate can redcue the transmission overhead. | Enable beacon frame to be transmitted with HE SU PPDU format in 6 GHz band. Add rate selection for the beacon frame with HE SU PPDU. | Revised –  Agree in principle with the commenter.  TGax editor to make the changes shown in 11-18/1508r3 under all headings that include CID 16588. |

**Discussion:** *None.*

**Propose:** Revised for CID 16588 per discussion and editing instructions in 11-18/1508r3.

***TGax editor: Change 3.2 Definitions specific to IEEE 802.11 as follows: (Track change on)***

**3.2 Definitions specific to IEEE 802.11  
*Change the following definitions:***

(…existing texts….)

**high Efficiency (HE) basic service set (BSS):** A BSS in which a Beacon frame transmitted by an HE station (STA) includes the HE Operation element.

**high efficiency (HE) beacon:** A Beacon frame transmitted in a high efficiency (HE) single user (SU) physical layer (PHY) protocol data unit (PPDU) to form a high efficiency basic service set (HE BSS). (#16588)

(…existing texts….)

***TGax editor: Change 4.3.14a High efficiency (HE) STA as follows: (Track change on)***

**4.3.14a High efficiency (HE) STA**

(…existing texts….)

The main MAC features in an HE STA that are not present in VHT STA or HT STA are the following:

(…existing bullets….)

— Optional support for ER BSS

— Optional support for HE BSS with HE Beacon(#16588)

(…existing bullets….)

(…existing texts….)

***TGax editor: Change 10.6.5.1 Rate selection for non-STBC Beacon and non-STBC PSMP frames as follows: (Track change on)***

* + - 1. Rate selection for non-STBC Beacon and non-STBC PSMP frames

Change as follows:

If the BSSBasicRateSet parameter is not empty, a non-STBC PSMP frame or a non-STBC Beacon frame that is not an ER beacon (see 10.6.5.8 (Rate selection for ER Beacon frames and group addressed frames)) or an HE beacon (see 10.6.5.8a (Rate selection for HE Beacon frames and group addressed frames))(#16588) shall be transmitted in a non-HT PPDU using one of the rates included in the BSSBasicRateSet parameter.(#11141)

If the BSSBasicRateSet parameter is empty, the frame shall be transmitted in a non-HT PPDU using one of the mandatory PHY rates.

***TGax editor: Add a new subclause after 10.6.5.8 (Rate selection for ER Beacon frames and group addressed frames) as follows: (Track change on)***

10.6.5.8a Rate Selection for HE Beacon frames and group addressed frames

If the basic HE-MCS and NSS set of the AP that starts an HE BSS with HE Beacon is not empty, the HE AP shall transmit HE Beacon frames and group-addressed frames in HE\_SU PPDUs using one of the <HE-MCS, NSS> tuples included in the basic HE-MCS and NSS set. If the basic HE-MCS and NSS set of the AP that starts an HE BSS is empty, then the HE AP shall transmit the HE Beacon frame and group addressed frames in HE SU PPDUs(#14156) using one of the(#Ed) mandatory <HE-MCS, NSS> tuples.(#16588)

***TGax editor: Add a new subclause after 27.16.5 as follows: (Track change on)***

27.16.5a HE beacon generation in an HE BSS

An HE Beacon frame is a Beacon frame carried in HE SU PPDU format. An HE AP may operate an HE BSS with an HE Beacon in 6 GHz band.

An HE AP may transmit HE Beacon frames and group addressed traffic defined in 10.7.5.9 (Rate selection for HE Beacon frames and group addressed frames) with 20 MHz bandwidth.

NOTE 1 - The TXVECTOR parameter BSS\_COLOR of the HE SU PPDU carrying the HE Beacon is set to 0 (see 27.11.4 (BSS\_COLOR)). (#16588)

NOTE 2 – The A-MPDU that carries the HE Beacon frame is a S-MPDU (see Table 9-528 (A-MPDU Contexts)).