IEEE P802.11
Wireless LANs

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| Comment resolutions for HE beacon in 6 Ghz band |
| Date: 2019-03-01 |
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Abstract

This submission proposes resolutions for multiple comments related to TGax D4.0 with the following CIDs (11 CIDs):

* 20115, 20298, 20706, 21569, 20076, 20704, 21159, 21284, 21494, 21568,
* 21570

Revisions:

* Rev 0: Initial version of the document.

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** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 20115 | Alfred Asterjadhi | 239.38 | I don't think the "non-" qualifier is inherited here. Please replace ", ER beacon, or HE beacon" with that is neither ER beacon nor HE beacon" | As in comment. Also please enable cross references for the links. | Revised –Agree in principle with the comment. Resolution fixes the inconsistency and the references.TGax editor to make the changes shown in 11-19/0301r0 under all headings that include CID 20115. |
| 20298 | kaiying Lv | 239.38 | ER beacon and HE beacon shall be transmitted in a non-HT PPDU. Change to "If the BSSBasicRateSet parameter is not empty, a non-STBC PSMP frame or a non-STBC Beacon frame that is not an ER beacon or HE beacon shall be transmitted in a non-HT PPDU using one of the rates included in the BSS-BasicRateSet parameter. " | As in comment. | Revised –Agree in principle with the comment. Proposed resolution accounts for the suggested change.TGax editor to make the changes shown in 11-19/0301r0 under all headings that include CID 20298. |
| 20706 | Mark RISON | 239.37 | "If the BSSBasicRateSet parameter is not empty, a non-STBC PSMP frame or a non-STBC Beacon frame,ER beacon or HE beacon shall be transmitted in a non-HT PPDU" makes no sense, since an HE beacon is defined as one transmitted in an HE SU PPDU | Delete the insertion at line 38 | Revised –Agree in principle with the comment. Proposed resolution is to explicitly say that these two types of beacons are not carried in non-HT PPDU.TGax editor to make the changes shown in 11-19/0301r0 under all headings that include CID 20706. |
| 21569 | Youhan Kim | 239.39 | 27.15.4a and 27.15.4b do not exist. | Fix references. | Revised –Resolution fixes the references.TGax editor to make the changes shown in 11-19/0301r0 under all headings that include CID 21569. |
| 20076 | Abhishek Patil | 430.63 | Incorrect reference. | As in comment | Revised –Resolution fixes the reference.TGax editor to make the changes shown in 11-19/0301r0 under all headings that include CID 20076. |
| 20704 | Mark RISON | 430.59 | A definition of HE beacon is needed | Add a definition in 3.2, modelled on the one for ER beacon | Revised –Agree with the comment. Proposed resolution adds a definition modelled after that of the ER beacon.TGax editor to make the changes shown in 11-19/0301r0 under all headings that include CID 20076. |
| 21159 | Po-Kai Huang | 430.63 | The referecne for rate selection of HE Beacon is wrong. The correct reference should be "26.15.6 Additional rules for HE beacons in the 6 GHz band" | As in comment. | Revised –Resolution fixes the reference.TGax editor to make the changes shown in 11-19/0301r0 under all headings that include CID 21159. |
| 21284 | Robert Stacey | 430.62 | Transmitting a Beacon frame in an HE PPDU contradicts statements in 10.6. There is no precendence on normative statements; all statements must be consistent. | Fix by updating statements in 10.6 to allow this. | Revised –Agree in principle with the comment. Resolution fixes the inconsistency.TGax editor to make the changes shown in 11-19/0301r0 under all headings that include CID 21284. |
| 21494 | Xiaofei Wang | 430.62 | Please clarify the logics why an AP shall not transmit HE beacon in the 2.4 GHz or 5 GHz? Even if there is no legacy BSS or STAs around? | please clarify | Rejected –The comment fails to identify a technical issue and is asking a couple of questions. In the 2.4 and or 5 GHz bands the AP needs to behave as a VHT or HT AP as well, i.e., needs to be discoverable by these STAs. As such it needs to generate the Beacons in non-HT PPDU format. Please note that the AP does not know if there are legacy STAs around. That is why it sends Beacons, so that it is discoverable by these STAs. |
| 21568 | Youhan Kim | 430.59 | P430L49 says "An HE beacon is a Beacon frame carried in an HE SU PPDU." But P239L38 says "HE beacon shall be transmitted in a non-HT PPDU". | Fix the definition of HE beacon so that it is consistent throughout the entire draft. | Revised –Resolution fixes the reference.TGax editor to make the changes shown in 11-19/0301r0 under all headings that include CID 21568. |
| 21570 | Youhan Kim | 430.63 | 27.15.4b does not exist | Fix the reference. (26.15.6??) | Revised –Resolution fixes the reference.TGax editor to make the changes shown in 11-19/0301r0 under all headings that include CID 21570. |

**Discussion: *None.***

**3.2 Definitions specific to IEEE 802.11**

**TGax Editor: *Insert the definition below (maintaining alphabetical order) as follows (#CID 20704):***

**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). *(#20704)*

**10.6.5.1 Rate selection for non-STBC Beacon and non-STBC PSMP frames**

**TGax Editor: *Change the paragraph below of this subclause as follows (#CID 20115, 20298, 20706, 21569, 21284, 21568):***

If the BSSBasicRateSet parameter is not empty, a non-STBC PSMP frame or a non-STBC Beacon frame that is not an ER beacon or HE beacon shall be transmitted in a non-HT PPDU using one of the rates included in the BSS-BasicRateSet parameter. An ER beacon is transmitted as defined 26.15.5 (Additional rules for ER beacons and group addressed frames) and an HE beacon is transmitted as defined in 26.15.6 (Additional rules for HE beacons in the 6 GHz band).*(#20115, 20298, 20706, 21569, 21284, 21568)*

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

* HE beacons in the 6 GHz band

An HE beacon is a Beacon frame carried in an HE SU PPDU.

**TGax Editor: *Change the paragraph below of this subclause as follows (#CID 20076, 21159, 21570):***

An HE AP may transmit an HE beacon in the 6 GHz band. An AP shall not transmit an HE beacon in the 2.4 GHz or 5 GHz bands. The AP shall transmit HE beacons following the rules defined in 26.15.6 (Additional rules for HE beacons in the 6 GHz band).  *(#20076, 21159, 21570)* (#16588)