### IEEE P802.11Wireless LANs

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| 11ax D3.0 MAC Comment Resolution for Random Access |
| Date: 2018-07-08 |
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Abstract

This submission proposes resolutions for comments of TGax Draft D3.0 with the following CIDs:

16596, 16597

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Editorial revision based on the comments from Tomo
* Rev 2: Defer 16597, Revise resolution for 16596 based on the feedback from Abhi
* Rev 3: Accommodate editorial comment from Mark

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** |
| 16596 | Po-Kai Huang | 297.03 | 27.5.5.2 | In 27.5.3.2.3 Allowed settings of the Trigger frame fields and TRS Control subfield, AP may include more than one user info field for allocating RA RUs. However, for non-RA response to Trigger frame, STA only needs to deal with one one user info field in the Trigger frame, and the exception allowed by UORA increases STA implementation complexity to support response to random access. | There are two options to ease the implemtation complexity by non-AP STA. Option 1: AP shall only inlucde at most one user info for allocating RA-RU for associated STAs. AP shall only inlucde at most one user info for allocating RA-RU for unassociated STAs. Option 2: Allow STA to read any User Info fields added in Trigger frame for allocating RA-RU to do UORA backoff. | Revised – Agree in principle with the commenter. We do the revision along the thought of option 2.TGax editor to make the changes shown in 11-18/1220r3 under all headings that include CID 16596. |

**Discussion:** *None.*

**Propose:** Revised for CID 16596 per discussion and editing instructions in 11-18/1220r3.

***TGax editor: Change 27.5.5.2 Eligible RA-RUs: (Track change on)***

* Eligible RA-RUs

An HE STA(#14266) that is the intended receiver of a User Info field in a Trigger frame (i.e., the AID12 subfield equal to the 12 LSBs of the AID of the STA) shall not contend for an RA-RU(#11033) that is indicated by a Trigger frame contained in the same PPDU and shall not decrement its OBO counter.

An eligible RA-RU(#11033) is a RA-RU(#11033) for which the HE STA is capable of generating an HE TB PPDU (i.e., the HE STA supports all transmit parameters indicated in the Common Info field and in the User info field corresponding to the RA-RU(#11033)) and shall satisfy at least one of the following conditions:

* The HE STA is not associated with the BSS it intends to transmit frames to and the AID12 value of the RA-RU(#11033) is 2045
* The HE STA is an associated STA, the TA field of the Trigger frame is set to the BSSID of the associated BSS and the AID12 value of the RA-RU(#11033) is 0

An HE STA(#14266) shall not contend for an eligible RA-RU(#11033) or decrement its OBO counter if it does not have pending frames for the AP.

An HE AP may indicate a set of contiguous RUs allocated for random access via the Number Of RA-RU subfield in the User Info field of the Trigger frame. When an AP allocates a contiguous set of RA-RUs, the first RA-RU in the set shall represent the starting RU allocation for the set.

NOTE—When contiguous RA-RUs are assigned, the size of all contiguous RA-RUs is the same and equal to the size of the first RU. Further, all the remaining subfields of the User Info field apply to all the contiguous RA-RUs in the set and the values for starting spatial stream and the number of spatial streams of the HE TB PPDU transmitted on each RA-RU are set to 1.

A non-AP HE STA shall determine the number of eligible RA-RUs in a contiguous set by adding the value carried in the Number Of RA-RU subfields plus one for the User Info field corresponding to an eligible RA-RU.

When a Trigger frame carries more than one User Info field corresponding to RA-RU, a non-AP HE STA may consider a subset of the User Info fields. In such case, the number of eligible RA-RUs for that non-AP STA shall be the total number of eligible RA-RUs indicated by the selected subset of User Info fields.(#16596)

NOTE – A STA, which considers only a subset of User Info fields, can randomly select User Info field(s) from the available set of User Info fields corresponding to RA-RU so that the UORA contention is not concentrated at the RA-RU set indicated by the first User Info field. (#16596)