IEEE P802.11
Wireless LANs

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| Comment resolution for Random Access CIDs  |
| Date: 2017-01-17 |
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Abstract

This submission proposes resolutions for multiple comments related to TGax D1.0 with the following CIDs (9 CIDs):

* 9333, 3216

Revisions:

* Rev 0: Initial version of the document.
* Rev 0.1: Modified based on feedback from Jason Kwok

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.***

# PARS I (Random Access)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
|  |  |  |  |  |  |
| 9333 | Tomoko Adachi | 41.34 | Most of the User Info subfields in the Trigger frame can be the same for RUs for UL OFDMA-based random access. This means the Trigger frame can be shorter and more efficient. | Limit the RU size that can be used for UL OFDMA-based random access in each Trigger frame and reduce the redundancy. | Accepted modifiedGiven that the Random access transmissions use only 1 spatial stream transmission the “Number of Spatial Stream” could be used to indicate the number of consecutive random access allocations. |
| 3216 | Ahmadreza Hedayat | 48.20 | Allow a way to indicate the number of RA RUs available in a Trigger frame within the Common-Info field. This helps a STA's implementation/operation. | E.g. add a Trigger-dependent Common Info field for the Basic Trigger frame with a subfield that indicated the number of RA RUs. |  Accepted modifiedGiven that the Random access transmissions use only 1 spatial stream transmission the “Number of Spatial Stream” could be used to indicate the number of consecutive random access allocations. |

**Discussion: *None.***

**TGax Editor: *Make the following changes on page 45, line 23 (#CID 9333, 3216 )***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | B0   B11 | B12    B19 | B20 | B21  B24 | B25 | B26     B31 | B32     B38 | B39 |  |
|  | AID12 | RUAllocation | Coding Type | MCS | DCM | SSAllocation / Random Access RU Number | Target RSSI | Reserved | Trigger Dependent User Info |
| Bits: | 12 | 8 | 1 | 4 | 1 | 6 | 7 | 1 | variable |

**TGax Editor: *Make the following changes on page 47, line 20 (#CID 9333, 3216 ):***

|  |  |  |
| --- | --- | --- |
|  | B26 B28 | B29 B31 |
|  | Starting Spatial Stream | Number Of Spatial Streams  |
| Bits: | 3 | 3 |
| * SS Allocation subfield format if AID12 in User info subfield is not equal to 0
 |



**Figure 9-52x - Random Access RU Number subfield format if AID12 in User info subfield is equal to 0**

The Random Access RU Number subfield indicates the number of continuous RUs allocated for random access, all the random access RUs have the same size, which is equal to the size of the first random access RU indicated in the RU allocation subfield. Both the STARTING\_SS\_NUM and NUM\_SS of the HE trigger-based PPDU transmitted on each random access RU are set to 1.

**TGax Editor: *Make the following changes on page 45, line 40 (#CID 9333, 3216 ):***

The RU Allocation subfield of the User Info field indicates the RU used by the HE trigger-based PPDU of the STA identified by the AID12 subfield. When AID12 in User info subfield is set to 0 the RU Allocation subfield indicates the RU used by the first UL OFDMA based random access transmission. The rest of the UL OFDMA based random access allocation use subsequent RUs with the same RU size. The RU Allocation subfield is 8 bits in length. The first bit, B12, indicates the allocated RU is located in the primary or non-primary 80 MHz (zero for primary and one for non-primary). The mapping of the subsequent 7 bits, B19-B13, indices to the RU allocation is defined in Table 9-25f (The encoding of B19-B13 of the RU Allocation subfield).

For e.g. if the AID12 in the User info subfield is set to 0, the BW subfield indicates 20 MHz, the RU allocation is 0000000 and the Random Access RU Number subfield subfield is 3 then 26 tone RU 1 [-121: -96], RU 2[-95: -70], RU 3 [-68:-43] are assigned to AID12=0 transmission.