IEEE P802.11
Wireless LANs

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| TGax D0.1 Comment Resolution for CID 2383 |
| Date: 2016-05-02 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Yonggang Fang | ZTE TX |  |  | yfang@ztetx.com |
| Kaiying Lv | ZTE |  |  | lv.kaiying@zte.com.cn |
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Abstract

This is the proposal for resolution of comment CIDs 2383.

**CID**

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| 2383 | 25.5.2.6.1 | 46 | 32 | remove "distributed" as it is not clear | remove "distributed" | Revised - UL OFDMA-based ~~distributed~~ random access is a random access mechanism commenced from the trigger frame for multiple HE STAs to transmit UL PPDUs simultaneously over ~~that~~ the randomly selected resource units (RUs) assigned by an AP ~~for transmission of UL PPDUs~~. |

**Accepted Content in SFD**

4.5 UL OFDMA-based random access

The spec shall define a Trigger frame that allocates resources for random access. [MU Motion 8, July 16, 2015, see [99]]

An HE AP is allowed to broadcast a TBD parameter in the trigger frame to the STAs so that STAs can initiate the random access process after the trigger frames.

[MAC Motion 41, September 17, 2015, see [100]]

When an STA has a frame to send, it initializes its OBO (OFDMA Back-off) to a random value in the range 0 to CWO (OFDMA Contention window). For an STA with non-zero OBO value, it decrements its OBO by 1 in every RU assigned to AID value TBD within the TF-R. For a STA, its OBO decrements by a value, unless OBO=0, equal to the number of RUs assigned to AID value TBD in a TF-R. OBO for any STA can only be 0 once every TF-R. A STA with OBO decremented to 0 randomly selects any one of the assigned RUs for random access and transmits its frame.

[MU Motion 27, September 17, 2015, see [101]]

The spec shall indicate cascaded sequence of Trigger frames by using a bit in the Trigger frame.

[MU Motion 21, September 17, 2015, see [102], modified with MAC Motion 50, November 2015, see [103]]

The spec shall include a mechanism that allows the Beacon frame to indicate the target transmission time(s) of one or more Trigger frame(s) that allocate resources for random access.

[MU Motion 22, September 17, 2015, see [102]]

The AP may send trigger frame to elicit buffer status report (BSR) using random access.

[MU Motion 39, November 2015, see [104]]

**Discussion:**

The UL OFDMA based random access process is a new mechanism introduced in 11ax to allow multiple stations to contend the medium simultaneously under the control of HE AP. The UL OFDMA random access commences from the trigger frame initiated by the AP. Once an HE station which has some buffered UL data or control signals to send receive the trigger frame for the random access, it will follow the OFDMA random access procedure defined in 25.5.2.6 and transmit the UL PPDU over a RU randomly selected from the allocated RUs in the trigger frame if its OFDMA backoff counter reach 0. Therefore the OFDMA random access mechanism is more like a central controlled randon access instead of “distributed”.

In order to avoid confusion, it suggests to remove the “distributed” and reword the sentence.

**Proposed Text Changes:**

------------- Begin Text Changes ---------------

**25.5.2.6 UL OFDMA-based random access**

UL OFDMA-based ~~distributed~~ random access is a random access mechanism commenced from the trigger frame for multiple HE STAs to transmit UL PPDUs simultaneously over ~~that~~ the randomly selected resource units (RUs) assigned by an AP ~~for transmission of UL PPDUs~~. The HE AP indicates a TBD parameter in the Trigger frame for HE STAs to initiate random access following the Trigger frame transmission.

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