IEEE P802.11
Wireless LANs

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| Comment Resolution on retransmission of OFDMA random access |
| Date: 2017-07-13 |
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Abstract

This submission proposes resolutions of comments received from TGax comment collection (TGax Draft 1.0).

* CIDs: 6139, 7425
1. **Introduction**

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. The introduction and the explanation of the proposed changes are 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 | Page Number | Line Number | Comment | Proposed Change | Resolution |
| 6139 | 174 | 17 | Clarify whether the short & long retry counter should be updated or not for every retransmission in random access operation | as the comment | RevisedAgree in principle with the comment. Revised as described in doc.: IEEE 802.11-17/1139r0 |
| 7425 | 174 | 16 | The retransmission procedure for random access is not clearly defined. | 1.Define a local MIB variable "dot11RARetryLimit",which indicates the maximum number of successive retransmission attempts.2. Change the sentence in L52-L54 of P172 as follows:"The non-AP STA with dot11OFDMARandomAccessOptionImlemented set to true shall maintain an internal OFDMA backoff (OBO) counter and an internal random access retry (RAR) counter.3. Change the second paragraph of 27.5.2.6.3 as follows:"If the HE trigger-based PPDU is not successfully transmitted in the randomly selected RU, the HE STA shall update its OCW to 2\*OCW+1 for every retransmission, until the OCW reaches OCWmax, and shall also increment its RAR counter by one and initialize its OBO counter to a random value in the range of 0 and OCW for every retransmission. Once the OCW reaches OCWmax for successive retransmission attempts, the OCW shall remain at the value of OCWmax until the OCW is reset. If the RAR counter has reached dot11RARetryLimit, there is no more retransmission attempt. "4. Change the third paragraph of 27.5.2.6.2 as follows:"For an initial HE trigger-based PPDU transmission or following a successful HE trigger-based PPDU transmission or following an unsuccessful HE trigger-based PPDU transmission for which there is no more retransmission attempts, when an HE STA obtains the value of OCWmin from the HE AP indicated in the RAPS element, it shall set the value of OCW to the OCWmin, and shall initialize its RAR counter to zero, and shall initialize its OBO counter to a random value in the range of 0 and OCWmin. | RejectedWe do not need to define separate retry counters or retry limit for UORA case, because D1.3 has already clarified retransmit procedures of HE TB PPDU in 10.22.2.11 (Retransmit procedure) which covers UORA case as well. |
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**Discussion**

We princeply argee with the comments which pointed out how to update short & long retry counter (QSRC[AC] and QLRC[AC]) should be clarified in UORA case as well.

Because retransmit procedures of HE TB PPDU have already specified in 10.22.2.11 (Retransmit procedures (L27~30, P175) ) of D1.3, we suggest that the QSRC[AC] and QLRC[AC] updating of UORA case should keep consistent with the retransmit procedures of HE TB PPDU described in 10.22.2.11 (the detailed text is shown as following)

“If an HE STA does not successfully receive the corresponding acknowledgement frame in response to the MPDU sent in an HE TB PPDU, the QSRC[AC] and QLRC[AC] for the associated EDCAF are not changed. (#9859)”

Thus, for avoiding confusion, we suggest to add the following sentence to the end of this subclause.

The unsuccessful transmission of the HE TB PPDU does not affect QSRC[AC] and QLRC[AC] (see 10.22.2.11 Retransmit procedures). (#CID 6139, 7425).

**Proposed resolution**

***Detailed implementation of the resolution***

Make the following changes to 802.11ax D 1.3

***TGax editor: add the following text under headling at the end of section 27.5.4.3 Retransmission procedure for UORA page 232 line 7 (#CID 6139, 7425):***

The unsuccessful transmission of the HE TB PPDU does not affect QSRC[AC] and QLRC[AC] (see 10.22.2.11 Retransmit procedures). (#CID 6139, 7425).