IEEE P802.11
Wireless LANs

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| Proposed CR for Clause 35.3.15.6. Sync PPDU start time |
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Abstract

This submission proposes comment resolutions for two CIDs 5999 and 5998 to 35.3.15.6 Start time sync PPDUs medium access in CC36:

Revisions:

* Rev 0: Initial version of the document.
* Rev1: added note 3

5999

5998

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| **CID** | **Commenter** | **Clause Number** | **Comment** | **Proposed Change** | **Resolution** |
| 5998 | Liwen Chu | 35.3.14.5 | The accuracy of start time synchronization (e.g. 4us) should be defined. | As in comment | Revised.This is already addressed in draft 1.5,Added clarification note 3 to clarify the origin of 4us requiermentSee page 418, lines TGbe editor to make the changes with the CID tag (#4233) in doc.: IEEE 802.11-22/0573r1[https://mentor.ieee.org/802.11/dcn/22/11-22-0573-01-00be-cid5999-cid5998-for-clause-35-3-15-6-sync-ppdu-start-time.docx |
| 5999 | Liwen Chu | 35.3.14.5 | When waiting another link's backoff counter becomes 0, the backoff counters of multiple TIDs may become 0. The rules to address this should be defined. | As in comment | Rejected.This is already addressed in draft 1.5see page 418 lines 61 to 64 and page 419 line 1 to 4Tgbe editor: no further action needed |
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**TGbe Editor to make the following changes in Subclause 35.3.15.6: of Draft 1. 5**

**35.3.15.6 Start time sync PPDUs medium access**

Each STA of an MLD operating on a pair of NSTR links for that MLD that aligns the start times of PPDUs scheduled for transmission on more than one link shall ensure that the EDCA rules on each link permit access to the medium on all the links at the time of issuance of the PHY-TXSTART.request for each link.

A STA of an MLD operating on a link that is a part of an NSTR link pair for that MLD shall follow the channel access procedure described below:

1. The STA may initiate transmission on a link when the medium is idle as indicated by the physical and virtual CS mechanisms and one of the following conditions is met:
2. The STA obtained an EDCA TXOP following procedure in 10.23.2.4 (Obtaining an EDCA TXOP)
3. The backoff counter of the STA is already zero, and the STA operating on the other link of NSTR link pair of the affiliated MLD obtained an EDCA TXOP following the procedure in 10.23.2.4 (Obtaining an EDCA TXOP).
4. When the backoff counter of the STA reaches zero, it may choose to not transmit and keep its backoff counter at zero. (#4412, 7787, 8040) A STA with backoff counter that has already reached zero initiate transmission only following condition (b)
5. (#4412, 7787, 8040) A STA with backoff counter that has already reached zero and that choose not to transmit following condition (b), may perform ~~performs~~ a new backoff procedure following deferral as described in 10.23.2.4 and 10.3.4.3 (#4753, 8348) before being allowed to initiate transmission on a link following condition (a). (#4413) In such a case, CW[AC] and QSRC[AC] shall be left unchanged

NOTE 1—The backoff counters for each link count down as specified in 10.23.2.4 (Obtaining an EDCA TXOP).

NOTE 2 – The decision to choose to not transmit when the backoff counter of the STA reaches zero as in (2) OR to perform a new backoff procedure to be allowed to initiate transmission following condition (a) as in (3) is implementation specific.

A STA that chooses not to transmit after the backoff counter reached zero on a link of NSTR link pair may have one or more EDCAF backoff counters with value zero on that link. The STA that initiates transmission on that link following condition (a) or (b) and has one or more EDCAF backoff counter that already reached zero shall choose only one implementation specific EDCAF for the transmission.

A STA with backoff counter that has already reached zero on a link and has a frame available for transmission shall follow channel access procedures described 10.23.2.4. (Obtaining an EDCA TXOP) after it detect medium transition from busy to idle.

The STA with backoff counter that has already reached zero and is initiating transmission following condition (b) is not mandated to initiate transmission on a slot boundary of the link on which the STA operates. The STA that is initiating transmission following condition (b) shall commence the transmission no later than 4us following slot boundary of the link on which the other STA whose backoff counter reaches zero operates.

(#5598)NOTE3 – The value of 4us is derived from aRxTxTurnaroundTime being equal to 4us for the purpose of this requirement

(2 CIDs)

SP:

Do you support to incorporate the changes proposed by the following CIDs in 11/573r1:

5999, 5998