IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CR for fairness in CTDMA | | | | |
| Date: 2025-03-12 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Dibakar Das | Intel |  |  | Dibakar.das@intel.com |
|  |  |  |  |  |

Abstract

This document addresses the CID 1378.

Rev0: initial version

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| **1378** | 37.8.2.3 | 72.44 | Add some rules that channel access and airtime fairness for STAs that are not participating in C-TDMA operation but are in the same collision domain of other APs pariticpating in C-TDMA based TXOP sharing. | Add some rules that put a limit on max allocated time to a shared AP and minimum time used by sharing AP for own transmissions. | **Revised.**  We add some rules on the lines of motion 329 on March 13 2025:  “The maximum time allocated by a sharing AP in a TXOP to all shared AP for CTDMA is not larger than the TXOP limit it advertised for the minimum between AC\_VI TxOP limit and the TxOP Limit of the AC it obtains the TxOP with to its associated STAs.  If TXOP limit for an AC is 0, there is no CTDMA in a TXOP obtained using that AC.  The sharing AP shall use at least a TBD portion of the obtained TXOP for data communication with its own associated STAs.  Note: similar consideration will apply for TXS mode 2”  and the Motion 244 MAC on Jan 16 2025:   * + - “Define a mechanism as part of the procedure of time sharing during a TXOP (e.g. C-TDMA, TXS, …) to support fairness to neighboring STAs (APs and non-APs)?   Exact mechanism is TBD”  **TGbn editor to make the changes shown in 11-25/479r0 under all text tagged with #1378** |

# Proposal:

***TGbn editor: Insert Clause 37.17 as follows (#1378):***

* 1. **Fairness considerations for time sharing during TXOP**

This subclause defines a mechanism as part of the procedure of time sharing during a TXOP (e.g., Co-TDMA, TXS) to support fairness to neighboring STAs (APs and non-APs). The exact mechanism is TBD.

The maximum time allocated by a TXOP owner AP within its obtained TXOP to all Co-TDMA coordinated APs during a Co-TDMA procedure or to its associated non-AP STAs during a TXS mode 2 procedure (i.e., one in which the allocating MU-RTS TXS Trigger frame has the TXS Mode subfield value set to 2) shall not be larger than any of the following:

* the TXOP limit it advertises to its associated STAs for AC\_VI.
* the TXOP limit it advertises to its associated STAs for the AC it obtains the TxOP with.

The sharing AP shall not perform any Co-TDMA procedure or TXS mode 2 procedure in a TXOP if the TXOP limit it advertises to its associated STAs for the AC it obtained that TXOP with is 0.

Within a TXOP in which a TXOP owner AP performs either Co-TDMA or TXS mode 2 procedure, the AP shall use at least a TBD portion of the obtained TXOP for data communication with its own associated STAs before sharing the TXOP.