IEEE P802.11
Wireless LANs

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| cc50-cid-1781-1782-cross-link-indication-for-npca |
| Date: June 9, 2025 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Chaoming Luo | OPPO |  |  | luochaoming@oppo.com |
| Liuming Lu |  |  | luliuming@oppo.com |
| Ning Gao |  |  | gaoning1@oppo.com |
| Yapu Li |  |  | liyapu1@oppo.com |
| Liangxiao Xin |  |  | v-xinliangxiao@oppo.com |

 Abstract

This submission proposes resolution for CID 1781 and 1782 received for CC50.

**Revisions:**

* Rev 0: Initial version of the document.
* Rev 1: Change the document format from ppt to doc

***TGbn editor: The baseline for this document is P802.11bn D0.3 and IEEE Std 802.11-2024***

# **CID 1781 and 1782**:

***TGbn Editor: Editing instructions preceded by “TGbn Editor” are instructions to the TGbn editor to modify existing material in the TGbn draft. As a result of adopting the changes, the TGbn editor will execute the instructions rather than copy them to the TGbn Draft.***

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| **CID** | **Commenter** | **Clause** | **Page.line** | **Comment** | **Proposed Change** | **Resolution** |
| 1781 | Chaoming Luo | 37.10 | 78.01 | To mitigate the **different view** problem, when an affiliated AP of link 1 **switches to NPCA P-channel**, the affiliated AP of link 2 which obtains an TXOP can inform the non-AP MLDs to switch to NPCA P-channel of link 1. | As in comment. | **Revised**Agree with the commenter in principle.**TGbn editor, please incorporate changes tagged with 1781 in 11-25/0540r1.** |
| 1782 | Chaoming Luo | 37.10 | 78.01 | To mitigate the **medium sync loss** problem, when an affiliated AP of link 1 **switches to BSS P-channel** from NPCA P-channel, the affiliated AP of link 2 which obtains an TXOP can solicit the non-AP MLDs to report NAV of link 1. | As in comment. | **Revised**Agree with the commenter in principle.**TGbn editor, please incorporate changes tagged with 1782 in 11-25/0540r1.** |

## **Discussion**

When AP1 affiliated with an AP MLD **switches to its NPCA primary channel**, AP2 affiliated with the same AP MLD which holds an TXOP may **notify** the non-AP MLDs that have affiliated STAs on link 1 (e.g., STA1, STA3, STA5) to switch to the NPCA primary channel. It is an opportunistic optimization.

* It works only if AP2 just holds an TXOP when AP1 switches to NPCA P-channel.
* The Tx, Rx and processing of the notification takes time, so the notification is kind of not in-time enough.



Before AP1 affiliated with an AP MLD **switches back to BSS primary channel** from its NPCA primary channel, AP2 affiliated with the same AP MLD which holds an TXOP may **solicit** NAV information of link 1 from the non-AP MLDs that have affiliated STAs camping on the BSS primary channel (e.g., STA5 does not do NPCA operation), so AP1 could restore the medium busy/idle status quickly. It is also an opportunistic optimization.

* It works only if AP2 just holds an TXOP when AP1 switches to NPCA P-channel.
* The Tx, Rx and processing of the request/response takes time, so the request needs to be sent before the NPCA TXOP ends.



## **Proposed Text starts**

**37.16 Non-primary channel access (NPCA)**

When an NPCA STA switches to the NPCA primary channel for NPCA operation, then the following rules apply:

…

***TGbn Editor: Please add the following paragraphs at P152L26 in 11bn D0.3:***

When an AP affiliated with an AP MLD operating on one link (link 1) switches to its NPCA primary channel, another affiliated AP of the AP MLD which holds an TXOP may transmit a Cross-link NPCA Notification frame to notify its associated non-AP MLD(s) that have affiliated STAs operating on the link 1 to switch to the NPCA primary channel on link 1. (#1781)

Upon receipt of a Cross-link NPCA Notification frame, a non-AP MLD may operate its affiliated non-AP STA of the notified link to switch to the NPCA primary channel. (#1781)

Before an AP affiliated with an AP MLD operating on one link (link 1) switches back to its BSS primary channel from its NPCA primary channel, another affiliated AP of the AP MLD which holds an TXOP may transmit a Cross-link NAV Request frame to solicit NAV information of the link 1 from its associated non-AP MLD(s) that have affiliated STAs operating on link 1 and staying on the BSS primary channel. (#1782)

Upon receipt of a Cross-link NAV Request frame, a non-AP STA affiliated with a non-AP MLD may transmit a Multi-STA BlockAck frame with a Feedback Type field set to 4 in a Per AID TID Info field to feedback the NAV information of the requested link. (#1782)

## **Proposed Text ends**

# **SP**

Do you support resolution to the CID 1781 and 1782 and incorporate the corresponding text changes in 11-25/0540r1 into the latest TGbn draft?

Y/N/A

# **References**