IEEE P802.11
Wireless LANs

|  |
| --- |
| Resolutions for CID 3298 and 3318 |
| Date: 2023-11-11 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Cheng Chen | Intel |  |  | cheng.chen@intel.com |

Abstract

This submission proposes resolutions to the following comments submitted in LB276 under Exchange topic. The CIDs are referring to D2.0. The text used as reference is D2.1.

CIDs: 3298 3318

Revision history:

R0: Original version

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 3298 | Chaoming Luo | 143.23 | Text is needed to clarify how would the value of Measurement Exchange ID be changed among measurement exchanges. Refer to P150L1 and P155L34, it's a counter incremented by 1 each time. | Add text saying it's a counter incremented by 1 after each measurement exchange. | Revised. See proposed resolution below in <DCN1989r0>. |
| 3318 | Chaoming Luo | 149.01 | The counter representing the Measurement Exchange ID should not be incremented immediately after NDPA, since there maybe TF sounding after NDPA sounding. | Modify the commented text and add text in 11.55.1.5.1 General or 11.55.1.1 Overview to describe how the Measurement Exchange ID gets incremented. | Revised. See proposed resolution below in <DCN1989r0>. |

**Proposed resolution**: Revised to both.

**Discussion**: Agree with the commenter and we need to add normative text for Measurement Exchange ID for both TB and Non-TB sensing measurement exchange.

1. For non-TB sensing measurement exchange, the rule is straightforward. That is, the Measurement Exchange ID shall increment after each non-TB sensing measurement exchange.
2. For TB sensing measurement exchange, currently we have three options based on offline discussions with some TGbf members.

Proposed normative text for non-TB sensing measurement exchange:

***TGbf editor, add the following paragraph at the end of in 11.55.1.5.3.1 D2.0:***

The non-AP STA maintains a Measurement Exchange ID modulo 64 for each non-TB sensing measurement exchange corresponding to a Measurement Session ID. The Measurement Exchange ID shall be incremented by 1 after each non-TB sensing measurement exchange.

Proposed options for non-TB sensing measurement exchange:

Option 1: Same as non-TB sensing measurement exchange, propose that the MEID in TB sensing measurement exchange also increments with each TB sensing measurement exchange.

Pros: Simple and straightforward.

Cons:

1. The main motivation for MEID is to map the report to each sounding transaction when the STA sends the measurement report, which is mainly for NDPA sounding and/or SR2SR sounding phase. For TF sounding phase only measurement exchange, the AP can take care of the MEID itself.
2. Reporting corresponding to NDPA sounding phase and/or SR2SR sounding phase may have randomly increasing MEIDs if there are TF sounding phase only measurement exchange in between. For example, MEID = 1, 3, 7, 8, 10…The AP will need to take more effort to correlate the report to each NDPA and/or SR2SR sounding phase.

***TGbf editor, add the following paragraph at the end of in 11.55.1.5.2.1 D2.0:***

The AP maintains a Measurement Exchange ID modulo 64 for each TB sensing measurement exchange corresponding to a Measurement Session ID. The Measurement Exchange ID shall be incremented by 1 after each TB sensing measurement exchange.

***TGbf editor, modify the following paragraph in 11.55.1.5.2.3 D2.0:***

The AP maintains a sounding dialog token counter modulo 64 for each TB sensing measurement exchange corresponding to a Measurement Session ID. When transmitting a Sensing NDP announcement frame to one or more non-AP STAs, the Sounding Dialog Token Number field in the Sounding Dialog field shall be set to the value of the corresponding counter representing the Measurement Exchange ID~~; after which the counter shall be incremented by 1~~.

Option 2: Keep current normative behaviors in D2.0 unchanged, i.e., for TB sensing measurement exchanges, we only increment MEID after each NDPA sounding phase or SR2SR sounding phase.

Pros: AP will always have consistently increasing MEIDs in the reports it gets from the STAs for NDPA sounding or SR2SR sounding.

Cons: The name MEID may not accurately reflect the behaviors if we do not increment MEID with a TF sounding phase only measurement exchange. In this case, we may need to consider replacing the term “Measurement Exchange ID” to “Measurement Report ID”, which would cause a significant amount of term update across D2.0 spec.

Option 3: For TB sensing measurement exchange, instead of incrementing with each measurement exchange, the MEID is incremented with each AVW. In this case, we also add the following constraints:

* One NDPA sounding per session per AVW
* One SR2SR sounding per session per AVW
* One or more SR2SI sounding per session per AVW

Pros: Keep the MEID term and keep the rule simple too (MEID increment with each AVW).

Cons: Added constraints on number of NDPA/SR2SR phase in each AVW.

***TGbf editor, add the following paragraph at the end of in 11.55.1.5.2.1 D2.0:***

The AP maintains a Measurement Exchange ID modulo 64 corresponding to a Measurement Session ID. The Measurement Exchange ID shall be incremented by 1 after each availability window corresponding to the Measurement Session ID.

***TGbf editor, modify the following paragraph in 11.55.1.5.2.3 D2.0:***

The AP maintains a sounding dialog token counter modulo 64 for each TB sensing measurement exchange corresponding to a Measurement Session ID. When transmitting a Sensing NDP announcement frame to one or more non-AP STAs, the Sounding Dialog Token Number field in the Sounding Dialog field shall be set to the value of the corresponding counter representing the Measurement Exchange ID~~; after which the counter shall be incremented by 1~~.

## SP

Do you support the proposed resolutions to the CIDs and incorporate the text changes into the latest TGbf draft?

Y/N/A