IEEE P802.11
Wireless LANs

|  |
| --- |
| **TGbn D0.1 Comment Resolution for A-MPDU (9.7.3) related to the Feedback information** |
| **Date:** 2025-05-13 |

|  |
| --- |
| Author(s): |
| Name | Affiliation | Address | Phone | Email |
| Hongwon Lee  | LG Electronics | 19, Yangjae-daero 11gil, Seocho-gu, Seoul 137-130, Korea |  | hongwon.lee@lge.com  |
| Insun Jang |  | insun.jang@lge.com |
| SunHee Baek  |  | sunhee.baek@lge.com  |
| Geonhwan Kim |  | geonhwan.kim@lge.com |
| Yelin Yoon |  | yl.yoon@lge.com |
| DongJu Cha |  | dongju.cha@lge.com |
| Jinsoo Choi |  | js.choi@lge.com |
|  |  |  |  |  |

Abstract

This submission proposes resolutions for the following 6 CIDs received for TGbn CC50 Comment Resolution:

* 1925, 2105, 2376, 2377, 2963 and 2964

Revisions:

- Rev 0: Initial version of the document.

- Rev 1: The resolution for CID 2376 is changed from Rejected to Revised

- Rev 2: Minor changes

- Rev 3: LLI case is added for the feedback information

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 TGbn Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbn Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***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.***

**CIDs:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause****(page.line)** | **Comment** | **Proposed Change** | **Resolution** |
| 1925 | Yingqiao Quan | 9.7.3(65.45) | The sentence "If solicited by an UHR AP's BSRP Trigger frame that allows inclusion of unavailability feedback (see 37.11.2 (Dynamic Unavailability Operation (DUO) mode)), then an additional Multi-STA BlockAck frame is allowed." appears misplace. The description of the order of these contents should be placed in the right column. And it should be "a UHR AP" but not "an UHR AP". | Suggest to move this sentence to the right column of Table 9-663--A-MPDU contents in the control response context and change "an UHR AP" to "a UHR AP". | Revisedapply the changes marked as #2964 in this document |
| 2105 | Vishnu Ratnam | 9.7.3(65.25) | The text in the second column of Table 9-663 reads: "or if any preceding PPDU in the TXOP carried a BSRP Trigger frame addressing a STA that is operating with the DUO mode". Verify if this should be any preceding PPDU or the immediately preceding PPDU. | As in comment. | RevisedAny preceding PPDU means any preceding PPDU format in here. This should be immediately preceding PPDU because the first and second subbullet are also related to the immediately preceding PPDU (Immediate response is required) There are some changes to clarify the condition with PPDU format level marked as #2963 in this document |
| 2376 | Ahmadreza Hedayat | 9.7.3(64.9) | Table 9-660. Need to revise the last sub-bullet when LL indication is carried in a M-BA. | As in comment | RevisedAgree with the commenter. Based on our agreements, we have two Feedback types (0: Unavailability, 1: LLI). The last sub-bullet should be generalized to cover various types of Feedback for the agreements and to ensure forward compatibility of NG UHR**TGbn editor, please make the changes tagged by CID #2376.** |
| 2377 | Ahmadreza Hedayat | 9.7.3(65.30) | Table 9-663. Need to revise the last sub-bullet for BlockAck when LL indication is carried in a M-BA. | As in comment. | RevisedAgree with the commenter. Based on our agreements, we have two Feedback types (0: Unavailability, 1: LLI) so far. The LLI mode should be added to the last sub-bullet.**TGbn editor, please make the changes tagged by CID #2377.** |
| 2963 | Mark RISON | 9.7.3(65.12) | "Multi-STA BlockAck frame if the preceding PPDU: [...]-- or if any preceding PPDU in the TXOP carried a BSRP Trigger frame" does not work | Remove the em dash and the indent | RevisedAgree with the commenter. The additional sub-bullet has been modified to align with the existing sub-bullets in order to describe the condition at the PPDU format level**TGbn editor, please make the changes tagged by CID #2963 in this document.** |
| 2964 | Mark RISON | 9.7.3(65.44) | This insertion is in the wrong row. This row is for QoS Null frame with No Ack ack policy | As in comment. | RevisedThe current text describes the aggregation of a Multi-STA BlockAck frame with one or more QoS Null frames (see 37.11.2, Dynamic Unavailability Operation (DUO) mode). Some modifications have been made to clarify this aggregation behavior**TGbn editor, please make the changes tagged by CID #2964.** |

**Propose:**

***TGbn editor: Please note that the baseline is 11be D7.0. and 11bn D0.2***

**9.7 Aggregate MPDU (A-MPDU)**

**9.7.3 A-MPDU contents**

***TGbn editor: Please change Table 9-660 (A-MPDU contexts) (only relevant rows shown) as follows:***

**Table 9-660 – A-MPDU contexts**

|  |  |  |
| --- | --- | --- |
| **Name of context** | **Definition of context** | **Table defining permitted contents** |
| … | … | … |
| Control Response | The A-MPDU is transmitted by a STA that is neither a TXOP holder nor an RD responder, or the A-MPDU is transmitted by an HE AP in response to an HE TB PPDU, or an EHT AP in response to an EHT TB PPDU, and the transmitter also needs* to transmit one of the following immediate response frames: Ack frame
* BlockAck frame with a TID for which an HT-immediate block ack agreement exists
* Multi-STA BlockAck frame for acknowledging multi-TID A-MPDU or (#2376) reporting feedback information (see Table 9-39 (Context of the Per AID TID Info subfield and presence of optional subfields if the AID11 subfield is not 2045))
 | Table 9-663 (A-MPDU contents in the control response context) |
| … | … | … |

***TGbn editor: Please change Table 9-663 (A-MPDU contents in the control response context) (only relevant rows shown) as follows:***

**Table 9-663 – A-MPDU contents in the control response context**

|  |  |
| --- | --- |
| MPDU | Conditions |
| Ack | Ack frame transmitted in response to an MPDU that requires an Ack frame. | One of Ack and compressed BlockAck frame is present at the start of the A-MPDU between two STAs that are not both HE STAs; these are not present other than at the start of the A-MPDU.One of Ack, Compressed BlockAck, and Multi-STA BlockAck frame is present at the start of the A-MPDU between two HE STAs; these are not present other than at the start of the A-MPDU. |
| BlockAck | Compressed BlockAck frame with a TID that corresponds to an HT-immediate block ack agreement. See NOTE (#2964)1.Multi-STA BlockAck frame if the preceding PPDU:* is (#2963) an HE or EHT TB PPDU that solicits an immediate response (see 26.4.4.5 (Responding to an HE TB PPDU with an SU PPDU)),
* (#2963) an HE or EHT PPDU that carries a multi-TID A-MPDU or ackenabled multi-TID A-MPDU (see 26.6.3 (Multi-TID AMPDU and ackenabled single-TID AMPDU)).,
* (#2963) or any PPDU that carries a BSRP Trigger frame addressing a STA that is operating in a mode that enables sending feedback information in the Multi-STA BlockAck (see 37.11.2 (Dynamic Unavailability Operation (DUO) mode) (#2377) and 37.16.1 Low latency indication (LLI))
 |
| EDMG Multi-TID BlockAck | If the preceding PPDU that carried a multi-TID A-MPDU contains an implicit or explicit block ack requests for multiple TIDs for which an HT-immediate block ack agreement exists, one or several copies of the same EDMG Multi-TID BlockAck frame. |
| … | … |
| QoS Null framewith No Ack ackpolicy | If sent to an HE STA or (#2964) if solicited by a UHR AP's BSRP Trigger frame that allows inclusion of feedback information (see Table 9-39 (Context of the Per AID TID Info subfield and presence of optional subfields if the AID11 subfield is not 2045)), QoS Null frames with No Ack ack policy.See Note 2 |  |
| NOTE (#2964)1—This condition is applicable for BlockAck variants established by block ack agreements and is notapplicable for the EDMG Multi-TID BlockAck where the condition depends on a preceding PPDU. (11ay)(#2964) Note 2 – The Multi-STA BlockAck frame and one or more QoS Null frames can be aggregated with other MPDUs in the A-MPDU if solicited by a UHR AP's BSRP Trigger frame that allows inclusion of feedback information (see Table 9-39 (Context of the Per AID TID Info subfield and presence of optional subfields if the AID11 subfield is not 2045)). |