IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Comment Resolution for LB 178 (D1.0): resolutions for MU comments 3476 and 3477 | | | | |
| Date: 20 September 2011 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Robert Stacey | Apple |  |  | rstacey@apple.com |
|  |  |  |  |  |

Abstract

This document provides resolutions for CIDs 3476 and 3477

## Comments

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Page** | **Line** | **Clause** | **Duplicate of CID** | **Resn Status** | **Comment** | **Proposed Change** | **Resolution** |
| 3476 | 33.04 | 4 | 8.4.1.37 |  |  | Don't use shall in the frame formats section. This normative statement belongs in 9.30.5. Also, note that there are three flavors of report: null, su and mu. Any statement about format needs to account for null. | State that this field reflects value in NDPA. Statements regarding format of the VHT Compressed Beamforming frame can be made in 8.5.16.2. | P – Resolution provided in 11/1276r0 |
| 3477 | 62.30 | 30 | 8.5.16.2 |  |  | This section should describe the three formats: null: su and mu. | Add text to describe the three format: null if Remaining Segments = all ones. Su if Remaining segments < all ones and Feedback type = SU, MU if Remaining segments < all ones and Feedback type = MU. | P – Resolution provided in 11/1276r0 |

## Discussion

As noted by commenter (#3476), the “shall” statements need to be removed. Also, the Feedback Type field is not the only field that determines the format of the VHT Compressed Beamforming Report frame. The description for the Feedback Type field as it applies to the frame format is thus, at a minimum, incomplete. Rather than expand the description, delete what is there and insert a complete description in the VHT Compressed Beamforming frame format section. This would also satisfy #3477.

Note that no further changes are needed to 9.30.5. This section all ready has a statement:

“A beamformee shall send a VHT Compressed Beamforming frame with the VHT MIMO Control Feedback Type field set to the same value as the Feedback Type field in the corresponding STA Info field in the NDPA frame.”

that satisfies #3476.

## Resolution

**8.4.1.46 VHT MIMO Control field**

***Change Table 8-ac4 (D1.1) as follows:***

Table 8-ac4—Subfields of the VHT MIMO Control field

|  |  |
| --- | --- |
| **Subfield** | **Description** |
| Feedback Type | Set to 0 for SU  Set to 1 for MU |
| Remaining Segments | Indicates(#3282) the number of remaining segments(#2793) for the  associated VHT Compressed Beamforming frame.  Set to 0 for the last segment of a segmented frame or the only segment  of an unsegmented frame. Set to a value between 1 and 6 for a segment that is not the last segment of a segmented frame. Set to 7 if the VHT Compressed Beamforming Report field and MU Exclusive Beamforming Report field are not present in the frame.(#3476)  In(#3286) a retransmitted segment, the field is set to the same value  associated with the segment in the original transmission.(#3285) |

**8.5.18.2 VHT Compressed Beamforming frame format**

***Change the last paragraph as follows:***

The VHT MIMO Control field is always present in the frame. The presence of the VHT Compressed Beamforming Report field and the MU Exclusive Beamforming Report field is dependent on the values of the Remaining Segments and Feedback Type subfields of the VHT MIMO Control field as defined in Table 8-YY.(#3476)(#3477)

Table 8-YY—VHT Compressed Beamforming Report frame fields present

|  |  |  |  |
| --- | --- | --- | --- |
| **VHT MIMO Control field** | | **VHT Compressed Beamforming Report field present** | **MU Exclusive Beamforming Report field present** |
| **Feedback Type** | **Remaining Segments** |
| SU | 0-6 | Yes | No |
| MU | 0-6 | Yes | Yes |
| SU or MU | 7 | No | No |