IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Null feedback Indication in MIMO Control | | | | |
| Date: 2011-05-xx | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | Email |
| Simone Merlin | Qualcomm Inc | 5775 Morehouse Dr  San Diego, CA 92109 | 8588451243 | [smerlin@qualcomm.com](mailto:smerlin@qualcomm.com) |
|  |  |  |  |  |

Abstract

This document provides resolution for the comments listed below.

Notes on this document:

* Comments are from: 11-11-0276-00-00ac-tgac-d0-1-comments.xls.
* Comments refer to: Draft P802.11ac\_D0.3.pdf.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 919 | 7.3.1.31 | 13 | 36 | TR | Specify how the absence of the Bemaforming report field is indicated in the VHT MIMO control field | Use a reserved combination (1110) of bits 12-15; this choice is compliant with the proposal presented in a different comment, referred to the indication of the segment numbering |
| 1123 | 7.3.1.31 | 13 | 36 | TR | The VHT MIMO Control field needs a way of specifiying null feedback |  |

Discussion

On addressing CIDs 919 and 1123, document 11/0378r4 defined the values for the following two sub-fields of the VHT MIIMO control field, including the values for the case of missing VHT Compressed Beamforming;

|  |  |
| --- | --- |
| **Subfield** | **Description** |
| Remaining Segments | Indicate the remaining segment number 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.  In case of a retransmitted segment, the field is set to the same value associated with the segment in the original transmission.  In case of a VHT Compressed Beamforming frame not carrying Compressed Beamforming Report and MU Exclusive Beamforming Report fields, the field is set to all ones. |
| First Segment | Set to 1 for the first segment of a segmented frame or the only segment of an unsegmented frame; set to 0 otherwise.  In case of a retransmitted segment, the field is set to the same value associated with the segment in the original transmission.  In case of a VHT Compressed Beamforming frame not carrying Compressed Beamforming Report and MU Exclusive Beamforming Report fields, the field is set to 0. |

Document 11/0378r4 did not clarify the value for the remaining sub-fields of the MIMO Control field for the case of missing VHT Compressed Beamforming field.

Moreover the “and” in the sentence “In case of a VHT Compressed Beamforming frame not carrying Compressed Beamforming Report and MU Exclusive Beamforming Report fields, the field is set to …” may be misinterpreted. The intention of the comments was to indicate the absence of the Compressed Beamforming Report and not only the case where both the Compressed Beamforming Report and the MU Exclusive report are absent; note that MU Exclusive report cannot be present unless Bamforming report is also present;

In this document we propose to set all the other sub-fields of the MIMO Control field to 0 in case the VHT Compressed Beamforming Report is missing in the VHT Compressed Beamforming element. We also propose to remove the reference to MU Exclusive Beamforming Report.

Editing instructions

|  |  |
| --- | --- |
| **Subfield** | **Description** |
| Remaining Segments | Indicate the remaining segment number 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.  In case of a retransmitted segment, the field is set to the same value associated with the segment in the original transmission.  In case of a VHT Compressed Beamforming frame not carrying the Compressed Beamforming Reportfield, the field is set to all ones. |
| First Segment | Set to 1 for the first segment of a segmented frame or the only segment of an unsegmented frame; set to 0 otherwise.  In case of a retransmitted segment, the field is set to the same value associated with the segment in the original transmission.  In case of a VHT Compressed Beamforming frame not carrying the Compressed Beamforming Report field, the field is set to 0. |

*Add the following sentence after Table 8-ac4*

In case of a VHT Compressed Beamforming frame not carrying Compressed Beamforming Report field, the fields Nc Index, Nr Index, Channel Width, Grouping, Codebook Information, Feedback Type and Sounding Sequence are reserved and set to 0.