IEEE P802.11
Wireless LANs

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| Comment Resolution for Beamforming Report Clarification |
| Date: 2011-09-19 |
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Abstract

This document provides resolution for the comments listed below.

Notes on this document:

* Comments are from: 11-11-0907-07-00ac-tgac-d1.0-comments.xls.
* Comments refer to: Draft P802.11ac\_D1.0.pdf.

*CID 2283, 2929 and 3169*

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| --- | --- | --- | --- | --- | --- | --- |
| 2283 | 91.64 | 9.30.5 | 2664 |  | Not clear how to act for AP when it receives Null FB | need to submit contribution |
| 2929 | 91.00 | 9.30.5 |  |  | The term "stores" refers to a specific implementation for the construction of the Compressed Beamforming Report. If the VHT STA actually "stores" the Compressed Beamforming report, the beamformer will get an outdated or invalid report when the VHT STA did not receive either the NDPA or NDP frame or both but received a Compressed Beamforming poll.  | Change the paragraph to: "A beamformee shall transmit a VHT Compressed Beamforming frame without including the VHT Com-pressed Beamforming Report field and the MU Exclusive Beamforming Report field if: a) The transmission duration of the VHT Compressed Beamforming frame would exceed the maximum PPDU duration; or b) The beamformee does not have any recently computed VHT Compressed Beamforming Report after receiving a Beamforming Report Poll frame." |
| 3169 | 33.32 | 8.4.1.37 |  |  | Why would a VHT Compressed Beamforming frame carry a Compressed Beamforming Report field? Isn't Compressed Beamforming frame only used in HT, in which case a VHT Compressed Beamforming frame would never carry a Compressed Beamforming Report field?Assuming it was a typo and it should have been VHT Compressed Beamforming Report field, why would a VHT Compressed Beamforming frame not carry a VHT Compressed Beamforming Report field? | please clarify |

Proposed Solution: Counter; We believe the current spec has an option that VHT Compressed Beamforming frame without Compressed report field (so called Null feedback) if those information is not available for certain cases as described in 9.30.5. However, the condition to send this Null feedback, especially “stored” in the second condition, is not clear, nor testable. If we have additional option for the beamformee to choose how to send the feedback under some conditions, those conditions should be clear and testable, otherwise the beamformee can do whatever it wants by claiming the condition is met arbitrarily. We don’t have a problem with the first condition, but worry about the second condition; “stored” is not testable. The second condition is to cover the case that the beamformee missed NDPA+NDP sequence but polled, so nothing to feed back. We don’t think it is a serious problem that the beamformee does not send any if that happens. We’d like to make the clear condition to send the Null feedback by removing the second condition as follows.

*Editor: Change line 57-65 in Page 91 to*

***A beamformee shall transmit a VHT Compressed Beamforming frame without including the*** ***VHT Compressed Beamforming Report field and the MU Exclusive Beamforming Report field if the transmission duration of the VHT Compressed Beamforming frame would exceed the maximum PPDU duration.***

***~~a) the transmission duration of the VHT Compressed Beamforming frame would exceed the maximum PPDU duration; or~~***

***~~a) the beamformee does not have any stored VHT Compressed Beamforming Report after receiving a Beamforming Report Poll frame~~***

*CID 3670 and 2678*

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| 3670 | 33.18 | 8.4.1.37 |  |  | "In case of a VHT Compressed Beamforming frame not carrying the Compressed Beamforming Report field, the field is set to all ones." -> this option is not clear from 8.5.16.2 VHT Compressed Beamforming frame format. |  Add to 8.5.16.2 that the Compressed Beamforming Report field can be "not present". |
| 2678 | 62.45 | 8.5.16.2 |  |  | A VHT Compressed Beamforming frame not carrying the Compressed Beamforming Report field will not have the VHT Compressed Beamforming Report and MU Exclusive Beamforming Report (P62L48). | Clarify that VHT Compressed Beamforming Rpoert and MU Exclusive Beamforming Report may not be present in some cases. |

Proposed Solution: Counter

*Editor: Add following at line 61 in Page 62*

*VHT Compressed Beamforming Report field and the MU Exclusive Beamforming Report field shall not be present if the transmission duration of the VHT Compressed Beamforming frame would exceed the maximum PPDU duration.*