IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| BW indication in non-HT PPDUs | | | | |
| Date: 2011-05-xx | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | Email |
| Simone Merlin | Qualcomm Inc | 5775 Morehouse Dr  San Diego, CA 92109 | 8588451243 | smerlin@gmail.com |
| Menzo Wentink | Qualcomm Inc | Straatweg 66-S, 3621 BR Breukelen,  The Netherlands |  | mwentink@qualcomm.com |
| Allert van Zelst | Qualcomm | Straatweg 66-S, 3621 BR Breukelen, The Netherlands | +31 346 259663 | allert@qualcomm.com |

Abstract

This document provides resolution for the comments listed below

Comments are from: 11-11-0276-00-00ac-tgac-d0-1-comments.xls

Comments refer to: Draft P802.11ac\_D0.1.pdf

Editing instructions refer to: Draft P802.11ac\_D0.3.pdf

**Comment**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1804 | Ye, Huanchun | 7.1.3.3.7 | 5 | 1 | TR | Non-HT duplicate can be used for Management and Data frames, so having BW indication allows reliable BW determination of these frames | delete the word “control” | See Discussion | MAC |

**Discussion**

Current text specifies that control frames requiring a response (and CTS) carry BW indication

Control frames are likely to be sent with non-HT (duplicate) preamble in order to be decoded properly on each of the 20 MHz channels and set the NAV appropriately, especially when sent at the start of a TXOP.

For these frames the correct determination of the BW is important

* + RTS-CTS operation is based on BW
  + NDPA and BR Poll determine the BW of the response feedback frames
  + BAR: the correct BW of the BA response is useful in multichannel operation for retaining control of the secondary channels
  + (Control wrapper can be used in combination with any other control frame, hence has the same requirements)
  + CF-end sent to an AP solicits a CF-end response which is supposed to reset the NAV on each 20MHz channels

Note that ACK and BA do not carry BW information as for those frames the BW indication is not relevant.

Management and Data frames, instead, are unlikely to be sent with non-HT duplicate format;

Their goal is not to provide protection and they do not need be decoded on each of the 20MHz channels.

Since they may carry significant amount of bytes, it is beneficial if they are sent with preambles allowing for higher data rates;

The benefit of indicating the BW in the PLCP header for the non-HT (duplicate) case is not relevant for these types of frames;

The proposed resolution is to reject the specific request of the comment.

Moreover, in order to improve the clarity of the spec text, we suggest to explicitly mention that BW indication shall not be included in PPDUs carrying frames of type data or management.

**Editing instructions**

**9.7.4 Rate selection for data and management frames**

***Add the following sentence:***

The CH\_BANDWIDTH\_IN\_NON\_HT TXVECTOR parameter shall not be present in PPDUs carrying management or data frames;

**8.2.4.3.8 TA field**

***Change the paragraph in this section as follows:***

The TA field contains an IEEE MAC individual address that identifies the STA that has transmitted, onto the

WM, the MPDU contained in the frame body field.

For a control MPDU transmitted in a non-HT or non-HT duplicate PPDU with the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT present, the Individual/Group bit of the TA field is set to 1 ***(add note 1)***. For data and management MPDUs or control MPDUs without the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT present, the Individual/Group bit in the TA field is set to 0.

NOTE 1: the requirement on setting the Individual/Group bit of the TA field does not apply to the CTS frame, which does not have a TA field;