IEEE P802.11
Wireless LANs

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| LB202 CID3296 BW support |
| Date: 2014-07-03 |
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Abstract

This document proposes a resolution for CID 3296 of LB202, the comment on TGm Draft 3.0 suggesting the modification of the description of BW support.

**REVISION NOTES:**

R0: initial

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

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

***TGmc Editor: Editing instructions preceded by “Instruction to Editor” are instructions to the TGmc editor to modify existing material in the TGmc draft. As a result of adopting the changes, the TGmc editor will execute the instructions rather than copy them to the TGmc Draft.***

**CID LIST:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 3296 | Matthew Fischer | 1029.47 | 8.4.2.157.2 | The universally complete set of architectures of 80+80 receivers does not imply support for 160 MHz operation as is already suggeted by the current definitions of the values for 1 and 2. I.e. support for 160 does not imply support for 80+80 and similarly, support for 80+80 does not imply support for 160. I.e. the case for 80+80 only support is missing. Same comment for TVHT (see 8.4.2.170) | Change "The value of 3 is reserved" to "Set to 3 if the STA supports 80+80 MHz mode and not 160 MHz" Change "Set to 1 if the STA supports 160 MHz" to "Set to 1 if the STA supports 160 MHz and not 80+80 MHz" - similar request for change to TVHT equivalent structures. | Revise - generally agree with commenter, TGmc editor to execute proposed changes from 11-14-0954r0 found under all headings which include CID3296 |

**Discussion:**

Description of BW support is not clear.

**Proposed changes**

**CID 3296**

**8.3.1.2 RTS frame format**

***TGmc editor: insert a new paragraph and bullets between the first two paragraphs of 8.3.1.2 RTS frame format as shown:***

The frame format for the RTS frame is as defined in Figure 8-19 (RTS frame).

The More Data bit in an RTS is set to 1 to indicate that the DATA MPDUs that are intended to be transmitted within the coverage of the NAV that is set by the DUR field of this RTS will be carried in a PPDU that either has:

A value of TXVECTOR parameter FORMAT of VHT and a value of TXVECTOR parameter CH\_BANDWIDTH of CBW160 or CBW80+80

Or

A value of TXVECTOR parameter FORMAT of TVHT and a value of TXVECTOR parameter CH\_BANDWIDTH of TVHT\_4W or TVHT\_2W+2W

The RA field of the RTS frame is the address of the STA, on the WM, that is the intended immediate recipient of the pending individually addressed Data, Management, or Control frame.

***TGmc editor: modify one row of Table 8-250 Subfields of the VHT Capabilities Info field within subclause 8.4.2.157.2 VHT Capabilities Info field as shown:***

**Table 8-250—Subfields of the VHT Capabilities Info field**

|  |  |  |
| --- | --- | --- |
| **Subfield** | **Definition** | **Encoding** |
| Supported Channel Width Set | Indicates the channel widths supported by the STA. See 10.40 (VHT BSS operation). | Set to 0 if the STA does not support either 160 or 80+80 MHz.Set to 1 if the STA supports 160 MHz and not non-contiguous 80+80 MHz Set to 2 if the STA supports 160 MHz and 80+80 MHz.The value 3 is reserved.For a TVHT STA, set the value of B2 to 1 if it supports TVHT\_MODE\_2C.For a TVHT STA, set the value of B3 to 1 if it supports TVHT\_MODE\_2N. |

***TGmc editor: modify one row of Table 8-252 VHT Operation Information subfields of the VHT Operation element within subclause 8.4.2.158 VHT Operation element as shown:***

**Table 8-252—VHT Operation Information subfields**

|  |  |  |
| --- | --- | --- |
| **Subfield** | **Definition** | **Encoding** |
| Channel Width | This field, together with the HT Operation element STA Channel Width field, defines the BSS operating channel width (See 10.40.1 (Basic VHT BSS functionality)). | Set to 0 for 20 MHz or 40 MHz operating channel width.Set to 1 for 80 MHz operating channel width.Set to 2 for 160 MHz and not non-contiguous 80+80 MHz operating channel width.Set to 3 for 80+80 MHz and 160 MHz operating channel width.Values in the range 4 to 255 are reserved. |

***TGmc editor: modify one row of Table 8-258 TVHT Operation Information subfields within subclause 8.4.2.170 TVHT Operation element as shown:***

**8.4.2.170 TVHT Operation element**

**Table 8-258—TVHT Operation Information subfields**

|  |  |  |
| --- | --- | --- |
| **Subfield** | **Definition** | **Encoding** |
| Channel Width | This field defines the BSS operating channel width (see 10.43 (Basic TVHT BSS functionality)). | Set to 0 for TVHT\_W operating channel width.Set to 1 for TVHT\_2W and not non-contiguous TVHT\_W+W operating channel width.Set to 2 for TVHT\_W+W and TVHT\_2W operating channel width.Set to 3 for TVHT\_4W and not non-contiguous TVHT\_2W+2W operating channel width.Set to 4 for TVHT\_2W+2W and TVHT\_4W operating channel width.Values in the range 5 to 255 are reserved. |

***TGmc editor: modify subclause 9.3.2.6 VHT RTS procedure as shown:***

**9.3.2.6 VHT RTS procedure**

A VHT STA transmitting an RTS frame carried in non-HT or non-HT duplicate format and addressed to a VHT STA shall set the TA field to a bandwidth signaling TA and shall set the TXVECTOR parameters CH\_BANDWIDTH\_IN\_NON\_HT and CH\_BANDWIDTH to the same value. If the STA sending the RTS frame is capable of dynamic bandwidth operation (see 9.3.2.7 (CTS and DMG CTS procedure)), the STA shall set the TXVECTOR parameter DYN\_BANDWIDTH\_IN\_NON\_HT to Dynamic. Otherwise, the STA shall set the TXVECTOR parameter DYN\_BANDWIDTH\_IN\_NON\_HT to Static.

A VHT STA that initiates a TXOP by transmitting an RTS frame with the TA field set to a bandwidth signaling TA shall not send an RTS frame to a non-VHT STA for the duration of the TXOP.

NOTE—A non-VHT STA considers the bandwidth signaling TA as the address of the TXOP holder. If an RTS frame is sent to a non-VHT STA during a TXOP that is initiated by an RTS frame with a bandwidth signaling TA, the non-VHT STA does not recognize the RTS sender as the TXOP holder.

A VHT STA that transmits an RTS within a TXOP within which it intends to include the transmission of a DATA MPDU carried in a PPDU with a value of TXVECTOR parameter FORMAT of VHT and a value of TXVECTOR parameter CH\_BANDWIDTH of CBW160 or CBW80+80 shall set the More Data bit of the RTS to 1.

***TGmc editor: add a new subclause 9.3.2.6a TVHT RTS procedure as shown:***

**9.3.2.6a TVHT RTS procedure**

A TVHT STA that transmits an RTS within a TXOP within which it intends to include the transmission of a DATA MPDU carried in a PPDU with a value of TXVECTOR parameter FORMAT of TVHT and a value of TXVECTOR parameter CH\_BANDWIDTH of TVHT\_4W or TVHT\_2W+2W shall set the More Data bit of the RTS to 1.

**References:**