IEEE P802.11
Wireless LANs

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| Comment Resolution subclause 31.2.5 |
| Date: 2021-03-10 |
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Abstract

This submission resolve the following comments for subclause 31.2.5 of 802.11bd D1.0:

* 1067, 1068, 1152, 1153, 1234, 1235, 1343, 1438, 1440, 1441, 1567, 1568, 1791

Revisions:

 R3: comment resolutions of deferred CID 1234, 1440

 R4: minor changes per the comments received in the session

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

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

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

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| **CID** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1067 | 40 | 2 | It is not clear what "a bandwidth signaling TA" means? the whole sentence is not very clear. Comment apply to two instances on line 2 and 16. | Please rewrite clarifying the sentence. | RejectedDiscussion: bandwidth signaling TA is used in 802.11 baseline for a PPDU with a soliciting Control frame to indicate that the scrambling sequence carries the BW information and dynamic/static information. |
| 1068 | 40 | 22 | Sentence is incomplete. "less than" what? | Please rewrite completing the sentence. | RevisedSee the accepted changes per 1152 |
| 1152 | 40 | 22 | Comparing value for 'less than' should be described | Change "less than." to "less than or equal to the channel width indicated in the RTS frame's RXVECTOR parameterCH\_BANDWIDTH\_IN\_NON\_NGV." | Accetped |
| 1153 | 40 | 22 | The duration for channel idle period for secondary 10 MHz channel should be defined | As in the comment | RevisedTGbd editor to make changes in 11-21/0431r1 under CID 1153 |
| 1234 | 40 | 5 | The descrition of the behavior for the Static case has some words that seem extraneous to me: "in the channel width indicated by the RTS frame's RXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_NGV". Those words can be deleted to clarify the sentence | In the first bullet on the page, in the first sentence, delete "in the channel width indicated by the RTS frame's RXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_NGV" after "10 MHz channel" so the sentence reads "If the NAV indicates idle and CCA has been idle for the secondary 10 MHz channel, then the STA shall respond with a CTS frame carried in a non-NGV or non-NGV duplicate PPDU." | RevisedDiscussion: the usage of secondary 10MHz channel to transmit CTS is decided by the BW of soliciting RTS, e.g. when RTS is transmitted in 20MHz channel, the CTS will use the secondary 10MHz.TGbd editor to make changes in 11-21/431r4 under CID 1234 |
| 1235 | 40 | 26 | I am unclear of the meaning of the final sentence of 31.2.5. In particular, I am unclear what the words "and is carried" refers to. | The sentence begins "If a 20 MHz NGV STA receives the frame(s) which solicits the responding frame and is carried in a 20 MHz NGV PPDU, ..." Reword this sentence to clarify what is referred to by the words "and is carried in a 20 MHz NGV PPDU". | RevisedSee the change per 1441 |
| 1343 | 40 | 20 | For the sentence "The CTS frame's TXVECTOR parameters CH\_BANDWIDTH and CH\_BANDWIDTH\_IN\_NON\_NGV shall be set to any channel width forwhich CCA on secondary 10 MHz channel has been idle and that is less than.", it seems that it is an incomplete sentence as there is nothing about "less than" afterwards/ | Please complete this incomplete sentence. | RevisedSee the accepted changes per 1152 |
| 1438 | 40 | 22 | "and that is less than" what? | Delete the cited text | RevisedSee the accepted changes per 1152 |
| 1440 | 40 | 5 | "idle for the secondary 10MHz channel in the channelwidth indicated by the RTS frame's RXVECTOR parameter" doesn't make sense. THe secondary 10M is necessarily in the channel width | Delete "in the channelwidth indicated by the RTS frame's RXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_NGV," | Revised**Discussion:** the usage of secondary 10MHz channel to transmit CTS is decided by the BW of soliciting RTS, e.g. when RTS is transmitted in 20MHz channel, the CTS will use the secondary 10MHz.**TGbd editor to make changes in 11-21/431r4 under CID 1440** |
| 1441 | 40 | 26 | "If a 20 MHz NGV STA receives the frame(s) which solicits the responding frame and is carried in a 20 MHzNGV PPDU, the 20 MHz NGV STA should transmit the responding Ack, BA in non-NGV duplicate PPDU." is unclear and has poor grammar | Change to "If a 20 MHz NGV STA receives a frame that solicits a response and is carried in a 20 MHz NGV PPDU, it should transmit the response in a non-NGV duplicate PPDU." | Accepted |
| 1567 | 40 | 22 | Incomplete sentence "... which CCA on secondary 10 MHz channel has been idle and that is less than." | Please clarify. | RevisedSee the accepted changes per 1152 |
| 1568 | 40 | 27 | Should "should" be "shall?" | Please clarify. | RejectedDiscussion: The reason to use “should” is that sometimes NGV PPDU can be used to use the features introduced by 11bd. |
| 1791 | 40 | 23 | The sentence is not complete. | As shown in the comment. | RevisedSee the accepted changes per 1152 |

**31.2.5 Non-NGV duplication operation**

***TGbd editor: Please change subclause 31.2.5 as follows:***

A 20 MHz NGV STA may transmit RTS in non-NGV duplicate PPDU to protect the 20MHz NGV PPDU

where the frames in the 20 MHz PPDU are addressed to another 20 MHz NGV STA.

A 20 MHz NGV STA that is addressed by an RTS frame in a non-NGV or non-NGV duplicate PPDU that has a bandwidth signaling TA and that has the RXVECTOR parameter DYN\_BANDWIDTH\_

IN\_NON\_NGV equal to Static behaves as follows:

— If the NAV indicates idle, and if the CCA indicates idle for the secondary 10MHz channel when the RTS frame’s RXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_NGV is equal to CBW20, then the STA shall respond with a CTS frame carried in a non-NGV or non-NGV duplicate PPDU after a SIFS. The CTS frame’s TXVECTOR parameters CH\_BANDWIDTH and CH\_BANDWIDTH\_IN\_NON\_NGV shall be set to the same value as the RTS frame’s RXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_NGV. (#1234, 1440)

— Otherwise, the STA shall not respond with a CTS frame.

A 20MHz NGV STA that is addressed by an RTS frame in a non-NGV or non-NGV duplicate PPDU that has a bandwidth signaling TA and that has the RXVECTOR parameter DYN\_BANDWIDTH\_

IN\_NON\_NGV equal to Dynamic behaves as follows:

— If the NAV indicates idle, then the 20 MHz NGV STA shall respond with a CTS frame in a non-

NGV or non-NGV duplicate PPDU after a SIFS. The CTS frame’s TXVECTOR parameters

CH\_BANDWIDTH and CH\_BANDWIDTH\_IN\_NON\_NGV shall be set to any channel width for

which CCA on secondary 10 MHz channel has been idle for a PIFS prior to the start of the RTS frame and that is less than. (#1153)

— Otherwise, the STA shall not respond with a CTS frame.

If a 20 MHz NGV STA receives the frame(s) which solicits the responding frame and is carried in a 20 MHz NGV PPDU, the 20 MHz NGV STA should transmit the responding Ack, BA in non-NGV duplicate PPDU.