IEEE P802.11  
Wireless LANs

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| Resolution to DMG CIDs | | | | |
| Date: 2018-09-09 | | | | |
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Abstract

Resolution to 11md CIDs related to DMG.

All the changes are related to 11md D1.4.

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| 1493 | 10.25.5.7 | 1726.08 | "An originator that is a DMG STA shall not start a new TXOP or SP with an MPDU or A-MPDU that has an  Ack policy other than Normal Ack" -- an A-MPDU does not have an Ack policy (sic) | Change the cited text at the referenced location to "An originator that is a DMG STA shall not start a new TXOP or SP with a PPDU containing a QoS Data MPDU that has an Ack Policy other than Normal Ack or Immediate Block Ack" |

**Proposed resolution**: Accept

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| 1314 | 11.4.1 | 2035.19 | "A non-AP DMG STA that is not the source DMG STA of a specific TS shall not initiate the exchange of a TSPEC to the AP DMG STA or PCP DMG STA to create that TS",    However, in the Allocation Direction subfield in the DMG attribute field of TSPEC element, the value can be 0 to indicate the sender of ADDTS request is not the source DMG STA of the allocation | remove "A non-AP DMG STA that is not the source DMG STA of a specific TS shall not initiate the exchange of a TSPEC to the AP DMG STA or PCP DMG STA to create that TS." |

**Discussion**: The commenter is mixing two different concepts: source of an allocation (i.e., SP or CBAP) with source of a TS. The Allocation Direction field is related to the source of an allocation, not TS. When referring to TSs, it is always the source of the TS that initiates the exchange of the corresponding TSPEC. This exchange can then be associated with an allocation, for which the source of such allocation can be the source of the TS or the destination of the TS – these are independent.

**Proposed resolution**: Reject

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| 1312 | 9.4.2.29 | 1040.22 | Table 9-151 Downlink "DMG BSS: MSDUs or A-MSDUs are sent by the non-AP recipient of the ADDTS Request frame" is very confusing    In 11.4.1 the spec says "It is always the responsibility of the non-AP STA to initiate the creation of a TS regardless of its direction." However in p1040.22 downlink definition, the ADDTS request is received by non-AP STA (sent by AP?), while data is sent to the AP (uplink?) | clarify the definition of downlink for DMG BSS |

**Discussion**: commenter points out a correct inconsistency. The text in 11.4.1 is correct, but table 9-151 needs to be ratified. Propose to delete “non-AP” from the table and, as such, let the specification be the text in 11.4.1.

**Proposed resolution**: Revised

**Proposed changes**:

*Change the following rows of Table 9-159 as indicated*

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| 0 | 0 | Uplink, defined as follows:  — Non-DMG BSS: MSDUs or A-MSDUs are sent from the non-AP STA to HC  — DMG BSS: MSDUs or A-MSDUs are sent by the ~~non-AP~~ originator of the ADDTS Request frame |
| 1 | 0 | Downlink, defined as follows:  — Non-DMG BSS: MSDUs or A-MSDUs are sent from the HC to the non-AP STA  — DMG BSS: MSDUs or A-MSDUs are sent by the ~~non-AP~~ recipient of the ADDTS Request frame |

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| 1310 | 10.37.4 | 1803.22 | It is not clear what is the case that a destination DMG STA can initiate a frame exchange sequence in an SP    In 10.37.6.2: "The source DMG STA shall initiate the frame exchange sequence that takes place during the SP at the start of the SP, except when the source DMG STA intends to establish a DMG protected period in which case the rules described in 10.37.6.6 (DMG protected period) shall be followed before the source DMG STA initiates the frame exchange in the SP"    In 10.37.6.6.1: "To create a DMG protected period, the source DMG STA of an SP sends an RTS, and the recipient STA responds with a DMG CTS. If the recipient STA responds with a DMG CTS, then a DMG protected period is established; otherwise, no DMG protected period has been established."  This sentence indicates only source DMG STA can create a DMG protected period    It seems in both cases (with or without DMG protected period), the frame exchange sequence can only be initaited by the source DMG STA in an SP | In 1083.22 remove "or destination" in "b) During an SP for which the STA is identified as source or destination (10.37.6.2 (Service period (SP) allocation) and 10.37.7 (Dynamic allocation of service period))"    In 1810.20, remove "or a destination DMG STA" in "A DMG STA that creates a DMG protected period during an SP in which it is a source DMG STA or a destination DMG STA moves to and stays in listening mode ..."    or    add a note describing the case that a destination DMG STA initiates frame exchange sequence in an SP |

**Discussion**:

1. The case when a destination STA initiates a frame exchange in an SP is given in 10.37.6.7 (Service period recovery). This is further explicitly elaborated in the third paragraph of 10.37.6.2 which states “Except when transmitting a frame as part of the SP recovery procedure (10.37.6.7 (Service period recovery)) or transmitting a response to the source DMG STA or transmitting a PPDU as part of an RD response burst (10.29 (Reverse direction protocol)), the STA identified by the Destination AID field in the Extended Schedule element should be in the receive state for the duration of the SP in order to receive transmissions from the source DMG STA.” Thus, simply removing the case of the destination STA as proposed by the commenter would not be correct.
2. With respect to the proposed changes by the commenter:
   1. The proposal to delete “or destination” from P1803L22 is incorrect given (a) above. Note that the text has an explicit reference to section 10.37.6.2, which further references 10.37.6.7 as noted above.
   2. The proposed changes to section (**10.37.6.6 DMG protected period**) are not correct. As the third paragraph states “Both the source DMG STA and destination DMG STA of an SP are owners of the DMG protected period”. Essentially, both STAs are required to create a protected SP. In fact, the paragraph quoted by the commenter in 10.37.6.6.1 alludes to this very fact, since both source and destination STAs are required to perform a frame exchange (RTS/CTS) to establish the protected period. So, essentially, both STAs create the SP.
3. With the above said, the sentence that is causing the confusion is the one noted by the commenter in the second paragraph of 10.37.6.2. It appears that the reason for the confusion of the commenter has to do with which STA transmits first in the SP. However, this is not what the second paragraph of 10.37.6.2 is trying to say, Specifically, the “…except when the source DMG STA intends to establish a DMG protected period …” has to do with the fact that in a protected period, the transmission from the source DMG STA might not necessarily begin at the start of the SP. If the NAV is busy, the transmission will be delayed until the NAV becomes idle. Therefore, it is not a question of whether it is the source or destination STA that initiates the transmission, but rather the timing in which the transmission takes place.
4. Propose to make an editorial change to the second paragraph of 10.37.6.2 to improve its readability, but the change is unrelated to the comment.

**Proposed resolution**: Revised

**Proposed change**:

*Change the second paragraph in 10.37.6.2 as follows*

An SP allocation that is not an obsolete allocation is assigned to the source DMG STA identified in the Source AID subfield in an Allocation field ~~that is not an obsolete allocation~~ within the Extended Schedule element. The source DMG STA shall initiate the frame exchange sequence that takes place during the SP at the start of the SP, except when the source DMG STA intends to establish a DMG protected period, in which case the rules described in 10.37.6.6 (DMG protected period) shall be followed before the source DMG STA initiates the frame exchange in the SP. The SP allocation identifies the TC or TS for which the allocation is made; however, the type of traffic transmitted is not restricted to the specified TC or TS (11.4.1 (Introduction)).