IEEE P802.11  
Wireless LANs

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| 11ac Partial AID | | | | |
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| Author(s): | | | | |
| Name | Affiliation | Address | Phone | Email |
| Simone Merlin | Qualcomm Inc | 5775 Morehouse Dr  San Diego, CA 92109 | 8588451243 | [smerlin@qualcomm.com](mailto:smerlin@qualcomm.com) |
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Abstract

This document provides resolution for the comments listed below.

Notes on this document:

* Comments are from: 11-11-0276-00-00ac-tgac-d0-1-comments.xls.
* Comments refer to: Draft P802.11ac\_D0.1.pdf.
* In providing instruction for spec editing, the following conventions are used.
  + Red text indicates changes to be applied to existing text in Draft P802.11ac\_D0.1.pdf.
  + Text in blue is text copied from the 802.11n-2009 baseline that was not shown in the 11ac draft and that need be added to the draft, with the modifications shown in green.
  + Text in black is unmodified text from Draft P802.11ac\_D0.1.pdf.
  + Italic light gray text indicates instruction to the editor.
* GID description: 972, 986

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| 479 | Hart, Brian | 9.7e | 50 | 24 | TR | Insertion of partial AID is described, but not reception. Processing of partial AID potentially allows clients to not continue to receive the Duration/ID field, with reduced collision avoidance capacity. Is this potential allowed? Also, MU-MIMO transmissions, especially MU-MIMO transmissions where a STA is assigned 0 STSs, has a similar effect and in 22.3.12.3 it is explicitly stated that the client can drop the packet well before the Duration/ID field. However, potentially the partial AID language, and certainly 22.3.12.3 is in conflict with 11.20.3 where it says "A VHT STA shall update its NAV using the Duration/ID field value in any frame received in a 20 MHz PPDU in the primary 20 MHz channel or received in a 40 MHz PPDU in the primary 40 MHz channel or received in a 80MHz PPDU in the primary 80 MHz channel or received in a 160 MHz or 80+80 MHz PPDU and that does not have an RA matching the STA’s MAC address." The potential conflict and certain conflict need to be resolved via a rewrite of 22.3.12.3 and appropriate restraints on the use of partial AID (e.g. indicating that processing is constrained by the requirements of 11.20.3). Once these changes are implemented, it is worth dwelling on the observation that any benefit of the partial AID is tiny given that address1 immediately follows Duration/ID and almost certainly is within the same OFDM symbol. | Resolve potential and certain conflicts | See discussion | MAC |
| 721 | Kneckt, Jarkko | 9.7e | 50 | 24 | TR | The partial AID in VHT PPDUs is not explained for mesh BSS. | Please add the following text to line 43: " In mesh BSS the AID of the peer mesh STA is obtained from the mesh peering establishment". | Will provide resolution later | MAC |
| 1781 | Lee, Jae Seung | 9.7e | 50 | 24 | TR | Text on Group ID field in a SU VHT PPDU is missing (The description is in section 6.6 of the spec framework document) | Add the following text from Sepc framework to section 9.7e or to any other section on Group ID: "In a SU VHT PPDU, if the PPDU carries MPDUs addressed to an AP STA, the Group ID field is set to all zeros, otherwise it is set to all ones." | Agree in principle, but this is not he appropriate section. GID description is in row 6 of table Table 22-9 | MAC |
| 1359 | Zhao, Shiwei | 9.7e | 50 | 49 | TR | When a STA shares same lower 9 bits of BSSID of a neighbor AP, it won't be able to do AID-based power save as seeing any unicast packets to that AP. The odds is still high, while it's easy to solve by setting special GID for STA-to-AP packets. | Choose a special GID for STA-to-AP packets. | Agree . Concept was already motioned in but not reflected in the text. Text has been updated in table Table 22-9 | MAC |

Discussion

Discussion on TR 479.

It is very likely that non intended receivers will not be able to decode the payload of a packet anyway, due to inappropriate MCS, beamforming, MU-MIMO, Coding etc.

Dropping the packet based on Partial AID or GID will not make the scenario much worse. Duration in data PPDUs cannot be considered a reliable way of providing protection. If protection is needed, RTS/CTS sent with non-HT PPDUs should be used. Duration field is still necessary for providing the intended receiver with the Duration information that need be accounted for when preparing the response frame.

Based on above discussion, the suggestion is to clarify that the decoding rules for the Duration field only apply to the packets that are not dropped (as consequence of power saving mechanisms) and that are correctly decoded;

CID 479 does not require action on section 9.7e. Document 11/0372 addresses the comment;

CIDs 1781, 1359 need no action on section 9.7e and are already addressed by CID 972 and similar, described in document 11/0344

Resolution of CID 721 will be provided later