IEEE P802.11
Wireless LANs

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| 802.11 TGac WG Letter Ballot LB187Proposed resolutions to comments on clause 8.3.1.20 |
| Date: 2012-02-23 |
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| 4223 | Bin Chen | 35.17 | 8.3.1.20 | AP could suggest the frequency granularity of the Compressed Beamforming Feedback Matrix feeback by STA, to balance the overhead and performance of the network, especially when there is a large number of associated STA and feedback overhead is significant. | May consider to make AP has the right to config the frequency granularity of the Compressed Beamforming Feedback Matrix feedback by STA. | REJECT | MAC |

Ng is a parameter that only the BFee can set appropriately; BFer does not know the frequency selectivity of the channel for a BFee, before sounding.

Also, a single Ng in the NDPA would mean that all the STAs listed in the STA info fields would have to send feedback with same Ng; AP will then have to choose the Ng in a conservative way (low Ng) to be sure the feedback from all the STAs is good enough; this would actually increase the overhead, because for some STAs a higher Ng would have been sufficient.

Overall it does not seem to provide much benefit and it actually may hurt efficiency.

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| 4286 | Brian Hart | 35.15 | 8.3.1.20 | current sounding sequence | Define a sounding sequence - when does it start and especially when does it end? | REVISE | MAC |

Change the sentence at P35L14 in 8.3.1.20 NDPA frame format

The Sequence Number subfield in the Sounding Sequence field contains a value selected by the beamformer to identify the VHT NDP Announcement frame.

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| 4287 | Brian Hart | 35.41 | 8.3.1.20 | What is AID if STA is an AP? | Refine definition | REVISE | MAC |

At 35.41 (Table 8-18a—STA Info subfields), first entry (AID), add to the description as follows:

Contains the AID of a STA expected to process the following NDP frame and prepare the sounding feedback. Equal to 0 if the STA is an AP, mesh STA or STA that is a member of an IBSS.

The following textP130L21 (9.31.5) clarifies that an NDPA intended for an AP shall include only one one STA info field, and AID=0:

*A beamformer that sends an NDPA frame to a beamformee that is an AP, mesh STA or STA that is a member of an IBSS, shall include a single STA Info field in the NDPA frame and shall set the AID field in the STA Info field to 0.*

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| 4288 | Brian Hart | 34.46 | 8.3.1.20 | No BSSID in NDPA, so if a client sends broadcast NDPA (e.g. TDLS+AP BFing), AP has to search thru up to thousands of TAs to determine if this NDPA is for it vs some other OBSS AP. Or is a BC NDPA to an AP ruled out elsewhere - if so then indicate via reference / explicit language | As in comment | REJECT | MAC |

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An addional statement in 9.31.5 states that an NDPA with a single STA Info field shall have unicast RA.

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| 4791 | Mark RISON | 35.43 | 8.3.1.20 | May a STA be listed more than once in an NDPA? Perhaps to allow for different types of feedback to be requested? | Add a sentence at the end of the AID Description: "A given AID is not present more than once in an NDPA frame." | REVISE | MAC |

It is useful to clarify the behaviour as suggested by the comment

**Add the following sentence in P130L19**

A VHT NDP Announcement frame shall not include two or more STA Info fields with same value of the AID subfield.

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| 5313 | Wei Shi | 35.25 | 8.3.1.20 | The AID is a 16-bit value in the range 1 to 2007 for the 14 LSBs with the 2 MSBs always set to 1. | Figure 1-29l shows just 12 bits for AID. I think a note in 9.31.5 to say that a beamformee uses the 12 LSBs of an AID for NDPA processing would be useful. | REJECT | MAC |

**The AID (as opposed to the ‘AID field’) is specified in 8.2.4.2.a and 8.4.1.8 to be in the range 1 to 2007.**  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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