IEEE P802.11
Wireless LANs

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| LB281 Comment Resolutions for Exchange bucket CIDs |
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Abstract

This document provides comment resolutions for CIDs 4082, 4178, 4181, 4185, 4285 and 4295 (6-total).

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 4082 | 9.3.1.19.5 | 33.28 | The STA info field with the AID11 subfield equal to 2045 should be in fixed order (e.g. last field) in the sensing NDPA frame since it is always present in order to easily parsed by the intended recipient. | as in comment | RejectThe Sensing NDP Announcement frame format is defined in section 9.3.1.19.1/5 to include STA Info field with AID11 equal to 2045 as the first STA Info field as opposed to the last field per commenter’s understanding. See spec text below from P28 L25-26.“The STA Info field with AID11 subfield equal to 2045 is always present in a Sensing NDP Announcement frame and it is transmitted as the first STA Info field.” |
| 4178 | 11.55.1.5.2.3 | 151.01 | Is dynamic channel puncture allowed in 320MHz BW sensing? Can a 320MHz STA being scheduled in a <=160MHz sensing frame exchange sequence? If the answer is yes, such device needs to support HE and EHT NDP. Another observation is that an EHT STA anyway will support EHT PPDU. By allowing <=160MHz EHT NDP sensing, the sensing in a <=160MHzBSS with channel puncture can use wider BW. | Clarify it | RejectAs per specification, sensing measurement exchanges with BW less than or equal to 160MHz use HE Ranging NDP while for sensing measurement exchanges at 320MHz (unpunctured or ‘static’ punctured according to Table 36-30, no dynamic puncturing allowed) use EHT Ranging NDP. The 320MHz STA according to 11be spec (baseline for 11bf) should support HE frame formats (i.e., NDP) regardless, therefore there is no need to replicate the use of EHT frame format for BW less than or equal to 160MHz. This approach provides the needed sensing exchange protocol while keeping the IOT issues to minimum.  |
| 4181 | 9.3.1.19.5 | 32.16 | Is dynamic channel puncture allowed in 320MHz BW sensing? Can a 320MHz STA being scheduled in a <=160MHz sensing frame exchange sequence? If the answer is yes, such device needs to support HE and EHT NDP. Another observation is that an EHT STA anyway will support EHT PPDU. By allowing <=160MHz EHT NDP sensing, the sensing in a <=160MHzBSS with channel puncture can use wider BW. | Clarify it | RejectAs per specification, sensing measurement exchanges with BW less than or equal to 160MHz use HE Ranging NDP while for sensing measurement exchanges at 320MHz (unpunctured or ‘static’ punctured according to Table 36-30, no dynamic puncturing allowed) use EHT Ranging NDP. The 320MHz STA according to 11be spec (baseline for 11bf) should support HE frame formats (i.e., NDP) regardless, therefore there is no need to replicate the use of EHT frame format for BW less than or equal to 160MHz. This approach provides the needed sensing exchange protocol while keeping the IOT issues to minimum.  |
| 4185 | 9.4.2.321 | 77.35 | Is dynamic channel puncture allowed in 320MHz BW sensing? Can a 320MHz STA being scheduled in a <=160MHz sensing frame exchange sequence? If the answer is yes for the second question, such device needs to support HE and EHT NDP. Another observation is that an EHT STA anyway will support EHT PPDU. By allowing <=160MHz EHT NDP sensing, the sensing in a <=160MHzBSS with channel puncture can use wider BW. | Clarify it | RejectAs per specification, sensing measurement exchanges with BW less than or equal to 160MHz use HE Ranging NDP while for sensing measurement exchanges at 320MHz (unpunctured or ‘static’ punctured according to Table 36-30, no dynamic puncturing allowed) use EHT Ranging NDP. The 320MHz STA according to 11be spec (baseline for 11bf) should support HE frame formats (i.e., NDP) regardless, therefore there is no need to replicate the use of EHT frame format for BW less than or equal to 160MHz. This approach provides the needed sensing exchange protocol while keeping the IOT issues to minimum.  |
| 4285 | 11.55.1.5.2.1 | 143.20 | While it is understandable that the AP needs to make sure that the participating sensing responders in a TB sensing session are present, the requirement for polling in each NDPA sounding exchange is disadvantageous from a power efficiency perspective and for privacy reasons. It should be sufficient to have a requirement that the AP STA shall poll sensing responders once per expiry period if they are not assigned to be polled and not asked to provide reports. | As in comment | RejectPolling phase is part of the TB sensing measurement exchange and not part of NDPA sounding! Polling phase enables AP not only to verify the presence of the sensing responder during the Sensing Availability Window (S-AVW) as to manage the MS expiry timer, but also to ensure that the assigned resources for NDPA sounding is actually being utilized (a required inquiry for each TB measurement exchange). As commenter might be aware the inclusion of polling phase is AP’s decision regardless of responder’s request. Essentially, spec considers an efficient utilization of NDPA sounding as priority over the responder’s “incremental” power save since responder must already be awake and ready to receive/participate in NDPA sounding not knowing when it would occur.  |
| 4295 | 11.55.1.5.2.1 | 143.20 | In TB sensing mode, NDPA sounding which doesn't need reporting cannot be done without a polling phase. Removing the polling phase requirement can result in a low power mechanism to do sensing at the non-AP STA side. The polling phase is not needed for each sensing PPDU for the AP to make sure the STA is present during the availability windows. Since there is a requirement for sensing activity every session expiry period, a polling response can be required once every session expiry time period. | Allow a TB session to consist of only NDPA sounding phase. In order for the AP to make sure the STA is present, a polling response can be required once in measurement session expiry time period. | RejectPolling phase is part of the TB sensing measurement exchange and not part of NDPA sounding! Polling phase enables AP not only to verify the presence of the sensing responder during the Sensing Availability Window (S-AVW) as to manage the MS expiry timer, but also to ensure that the assigned resources for NDPA sounding is actually being utilized (a required inquiry for each TB measurement exchange). As commenter might be aware the inclusion of polling phase is AP’s decision regardless of responder’s request. Essentially, spec considers an efficient utilization of NDPA sounding as priority over the responder’s “incremental” power save since responder must already be awake and ready to receive/participate in NDPA sounding not knowing when it would occur.   |

**References: IEEE P802.11bf D4.0**