### **IEEE P802.11 Wireless LANs**

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| Updated Sensing NDPA Frame Format | | |
| Date: 2023-9-5 | | |
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**This document proposes changing the NDPA frame format for TB sensing measurement exchange and its relevant text based on D2.0 to align its behavior to be backwards compatible to 11az TB sequence. The identified issue is the result of AP being an initiator in sensing whereas AP in 11az is a responder hence couple of parameters were included in different subfields within the STA Info field.**

**Instruction to TGbf editor in P44-45 of D2.0**

**Change relevant text as shown below in addition to the title for Figure 9-75I to make it specific for use in Non-TB sensing measurement exchange**

**Insert a new Figure 9-75x for NDPA frame format used in TB sensing measurement exchange, and change relevant text as shown below**

The format of the STA Info field in a Sensing NDP Announcement frame if the AID11 subfield is less than 2008 is defined in Figure 9-75l (STA Info field format in a Sensing NDP Announcement frame if the AID11 subfield is less than 2008 used in Non-TB sensing measurement exchange) and in Figure 9-75x (STA Info field format in a Sensing NDP Announcement frame if the AID11 subfield is less than 2008 used in TB sensing measurement exchange).

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|  | B0   B10 | B11  B16 | B17 B19 | B20 B22 | B23 B25 | B26 | B27 | B28 B30 | B31 |
|  | AID11 | Reserved | SR2SI NSTS | SR2SI Rep | SI2SR NSTS | Reserved | Disambiguation | SI2SR Rep | Reserved |
| Bits: | 11 | 6 | 3 | 3 | 3 | 1 | 1 | 3 | 1 |
| * STA Info field format in a Sensing NDP Announcement frame if the AID11 subfield is less than 2008 used in non-TB sensing measurement exchange | | | | | | | | | |

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|  | B0   B10 | B11  B16 | B17 B19 | B20 B22 | B23 B25 | B26 | B27 | B28 B30 | B31 |
|  | AID11 | Reserved | SI2SR NSTS | SI2SR Rep | Reserved | Reserved | Disambiguation | Reserved | Reserved |
| Bits: | 11 | 6 | 3 | 3 | 3 | 1 | 1 | 3 | 1 |
| Figure 9-75x--STA Info field format in a Sensing NDP Announcement frame if the AID11 subfield is less than 2008 used in TB sensing measurement exchange | | | | | | | | | |

If the AID11 subfield is less than 2008, it identifies a STA that is an intended recipient of this frame and assigns the parameters within this STA Info field to this STA. In case of the TB sensing measurement exchange (see 11.55.1.5.2 (TB sensing measurement exchange) and Figure 9-75x (STA Info field format in a Sensing NDP Announcement frame if the AID11 subfield is less than 2008 used in TB sensing measurement exchange)), the AID11 subfield contains the 11 least significant bits of the AID of an associated STA or the unassociated STA identifier (USID) of an unassociated STA that is to process the NDP that follows. In the case of a non-TB sensing measurement exchange (see 11.55.1.5.3 (Non-TB sensing measurement exchange) and Figure 9-75l (STA Info field format in a Sensing NDP Announcement frame if the AID11 subfield is less than 2008 used in Non-TB sensing measurement exchange), the intended recipient is identified by the RA field and the AID11 subfield is set to 0.

When used in a TB sensing measurement exchange (see 11.55.1.5.2 (TB sensing measurement exchange) and Figure 9-75x (STA Info field format in a Sensing NDP Announcement frame if the AID11 subfield is less than 2008 used in TB sensing measurement exchange)), if the bandwidth of the PPDU carrying the NDP Announcement frame is less than or equal to 160 MHz,

— the SI2SR NSTS and SI2SR Rep fields are used to indicate the HE-LTF configuration (see 27.3.18a.1 (HE Ranging NDP)) of the SI2SR NDP that follows

—~~the sensing responder to sensing initiator (SR2SI) NSTS and SR2SI Rep fields are reserved~~

When used in a TB sensing measurement exchange (see 11.55.1.5.2 (TB sensing measurement exchange) and Figure 9-75x (STA Info field format in a Sensing NDP Announcement frame if the AID11 subfield is less than 2008 used in TB sensing measurement exchange)), if the bandwidth of the PPDU carrying the NDP Announcement frame is equal to 320 MHz,

— the SI2SR NSTS field is used to indicate the number of spatial streams in the SI2SR NDP that follows

— the SI2SR Rep~~, SR2SI NSTS, and SR2SI Rep~~ field~~s are~~ is reserved

When used in a non-TB sensing measurement exchange (see 11.55.1.5.3 (Non-TB sensing measurement exchange) and Figure 9-75l (STA Info field format in a Sensing NDP Announcement frame if the AID11 subfield is less than 2008 used in Non-TB sensing measurement exchange)), if the bandwidth of the PPDU carrying the NDP Announcement frame is less than or equal to 160 MHz,

— the SI2SR NSTS and SI2SR Rep fields are used to indicate the HE-LTF configuration (see 27.3.18a.1 (HE Ranging NDP)) of the SI2SR NDP that follows

— the SR2SI NSTS and SR2SI Rep fields indicate the HE-LTF configuration of the SR2SI NDP sent in response by the AP (i.e., sensing responder)