IEEE P802.11  
Wireless LANs

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | CC40 CR for CIDs on Sensing Roles | | | | | | Date: 2022-09-28 | | | | | | Author(s): | | | | | | Name | Affiliation | Address | Phone | email | | Mahmoud Kamel | InterDigital |  |  | mahmoud.kamel@interdigital.com | | Zinan Lin | InterDigital |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |

Abstract

This submission proposes resolutions for 11 CIDs (144, 578, 676, 715, 750, 773, 778, 808, 809, 878, 879) in subclause 11.21.18 in P802.11bf D0.1:

NOTE – Set the Track Changes Viewing Option in the MS Word to “All Markup” to clearly see the proposed text edits.

**Revision History:**

R0: Initial version

R1: Updated Table 11-XXX and transferred CIDs 815 and 877

# CIDs 144, 750, 808, 809, 878, 879

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 144 | 11.21.18.3 | 66.61 | "A STA may participate in multiple sensing sessions either as a sensing initiator or as a sensing responder.". It is not clear if this sentence means that the same STA may be an initiator and a responder in the same time in two different but concurrent sensing sessions. | Rephrase the sentence to clarify if the scenario in the comment is a valid scenario. | **Revised**  The sentence is edited to state explicitly that the multiple sensing sessions are concurrent.  TGbf editor: please incorporate changes shown in 11-22/1675r1 below. |
| 750 | 11.21.18.3 | 66.61 | Replace the word 'sensing sessions' with 'sensing measurement setups' | As per comment | **Rejected**  This paragraph is referring to the scenarios where the same STA may act as an initiator or as a responder in different but concurrent sensing sessions. There is no reference to the sensing measurement setups in this subclause 11.21.18.3 which comes next in subclause 11.21.18.4. |
| 808 | 11.21.18.3 | 66.61 | "A STA may participate" should be "A STA may concurrently participate", right? | Please clarify. | **Revised**  The sentence is edited to state explicitly that the multiple sensing sessions are concurrent.  TGbf editor: please incorporate changes shown in 11-22/1675r1 below. |
| 809 | 11.21.18.3 | 66.64 | What does 'maintain' mean? Is it just that an initiator may concurrently participate in multiple sensing sessions? | As suggested | **Revised**  The sentence is edited to state explicitly that the multiple sensing sessions are concurrent.  TGbf editor: please incorporate changes shown in 11-22/1675r1 below. |
| 878 | 11.21.18.3 | 66.61 | Change this sentence to "A STA may participate in multiple sensing sessions at the same time either as a sensing initiator or as a sensing responder". | as in comment | **Revised**  The sentence is edited to state explicitly that the multiple sensing sessions are concurrent.  TGbf editor: please incorporate changes shown in 11-22/1675r1 below. |
| 879 | 11.21.18.3 | 66.64 | Change this sentence to "A sensing initiator may maintain multiple sensing sessions at the same time to fulfill the requirements of a WLAN sensing procedure" | as in comment | **Revised**  The sentence is edited to state explicitly that the multiple sensing sessions are concurrent.  TGbf editor: please incorporate changes shown in 11-22/1675r1 below. |

***TGbf Editor: Please modify Clause 11.21.18.3 11bf D0.3 P91L47 as follows***

A STA may participate in multiple concurrent sensing sessions either as a sensing initiator or as a sensing responder.

A sensing initiator may maintain multiple concurrent sensing sessions to fulfill the requirements of a WLAN sensing

procedure.

# CIDs 676, 715

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 676 |  | 32.58 | The Statement; "....,or neither a sensing transmitter nor a sensing receiver." This statement needs to be clarifies if a STA is not a transmitter or a receiver then what does it do.? Does it still participate in the sensing session? | Clarify | **Revised**  This may be the case in SR2SR sensing. The initiator is neither a transmitter nor a receiver but still participate in the sensing session to initiate the SR2SR sensing and collect the measurement reports. |
| 715 | 11.21.18.1 | 64.65 | Does not seem to make sense that a STA can initiate a sensing procedure and then not neither take part or being interesed in the results. | Is the note correct? Seems that a STA that does not participate in the actual sensing at least must be interested in the results? | **Revised**  This may be the case in SR2SR sensing. The initiator is neither a transmitter nor a receiver but still participate in the sensing session to initiate the SR2SR sensing and collect the measurement reports. |

# CID 773

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 773 | 3.2 | 16.15 | The term "I2R" is defined in 11az as "ISTA to RSTA" while ISTA is defined in 11az draft 4.0 11.21.6.3.1 as a STA that supports the FTM prceodure. If one were to continue to use the term "I2R" and "R2I" we need to differentiate this from how those terms are used in 11az. Also, clarify how this relates to the definition of "sensing initiator/responder". | Clarify and/or differentate the terms "I2R", "R2I" in 11bf from that in 11az. | **Revised**  The term I2R is changed to SI2SR and the term R2I is changed to SR2SI to differentiate those terms in the sensing amendment. |

# CIDs 778, 578

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 778 | 11.21.18.1 | 64.59 | Since there are so many possible combinations it is useful to either provide a table or reference to a typical usage for each of these combination of initiaior, tx/rx. For example, 'full' TB sensing when initiator is AP and is both sensing tx and rx etc. | As in comment. | **Revised**  Table 11-XXX is proposed to enumerate all the cases of different sensing roles and the scenarios they imply.  TGbf editor: please incorporate changes shown in 11-22/1675r1 below. |
| 578 | 11.21.18.1 | 64.58 | As a sensing initiator, 11bf defines multiple modes of operation for the sensing initiator in the sensing procedures, ie. Transmitter, reciever, or neither. Suggest to specify which mode is mandatory or optional. | as in the comment. | **Revised**  Table 11-XXX is proposed to enumerate all the cases of different sensing roles for the initiator and whether it is mandatory or optional  TGbf editor: please incorporate changes shown in 11-22/1675r1 below. |

***TGbf Editor: Please* insert *Table X-YYY in Clause 11.21.18.1 11bf D0.3 P88L61***

Table 11-XXX: Different Sensing Roles in a TB Sensing Measurement Instance

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| **Case** | **Initiator** | **Responder 1** | **Responder 2** | **Scenario** | **Mandatory /Optional Support for the Initiator** |
| 1 | Transmitter | Receiver | Receiver | TB sensing measurement instance with an NDPA Sounding phase | Mandatory |
| 2 | Receiver | Transmitter | Transmitter | TB sensing measurement instance with a TF Sounding phase | Mandatory |
| 3 | Both  (Note 2) | Both/Tx/Rx | Both/Tx/Rx | TB sensing measurement instance with both NDPA Sounding phase and a TF Sounding phase | Mandatory |
| 4 | Neither  (Note 2) | Both/Tx/Rx | Both/Tx/Rx | TB sensing measurement instance with SR2SR Sensing | Optional |

Note1: The number of responders is not necessarily be only two, and the number or responders in this table is one example.

Note2: Responder 1 and Responder 2 cannot be both assigned the role of transmitter or the role of receiver at the same time in cases 3 and 4.