IEEE P802.11
Wireless LANs

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| Comment Resolution for CIDs Related to WLAN Sensing Procedure Overview (11.21.18.1) |
| Date: 2022-11-01 |
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Abstract

This document proposes resolutions to the following CC40 CIDs: 89, 187, 474, 532, 606, 714, 776, 777, 814, 846, 847, 849, and 875. All CIDs relate to clause 11.21.18.1 in 802.11bf D0.1/D0.2/D0.3.

R0: Initial resolution proposals.

R1: Discussion with initial commentors.

* Removed CID 803.
* Added CID 714.
* Review with Setup TTT members

R2: Additional feedback included for #532, #846

R3: Separated common comments into individual tables

 Resolutions relative to D0.3

 CIDs 187, 606, and 849 resolved via D0.3 changes

 CID 777 resolution updated to incorporate language introduced in D0.3.

R4: Comments added during 11bf presentation and discussion

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| 532 | 11.21.18.1 | 64.42 | For successful sensing measurement, all procedures seem to be needed in my understanding. for example, without measurement setup or measurement instance, I am not sure if the sensing operation can be done successfully. So, all procedures should be included in the sending measurement. | Modify the text on P64L42 as following" A WLAN sensing procedure is composed of the following: Sensing session setup, sensing ..." | Revised:Agreed that there is a required sequence. Text modifications have been combined with other comments to identify ordering of sequence.See editor note to modify the text in D0.3 88.38-41. |
| 846 | 11.21.18.1 | 64.42 | It is partially true that a WLAN sensing procedure is composed of one or more of the following exchanges. For example it is not possible to have a measurement instance without a preceding measurement setup. Therefore, this statement is not percise. | Change text to: "A WLAN sensing procedure may be composed of one or more of the following exchanges:" | Revised:Agreed that there is a required sequence. Text modifications have been combined with other comments to identify ordering of sequence.See editor note to modify the text in D0.3 88.38-41. |

**Note:**

Page 64 in D0.1 has been moved to page 88 in D0.3. The relevant line numbers have changed to 38-41 in D0.3.

***TGbf Editor: Modify the text in D0.3 88.38-41 as follows:***

A WLAN sensing procedure is first composed of ~~one or more of the following:~~ setup frame exchanges, which are ~~S~~sensing session setup, and sensing measurement setup, followed by zero or more sensing measurement instance(s)(#604, #804), and terminated either implicitly or explicitly with termination frame exchanges sensing measurement setup termination, and sensing session termination (#532, #846).

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| 89 | 11.21.18.1 | 64.52 | Text doesn't allow all options | The text in 11.21.18.1 states: "A sensing measurement instance is a time interval when sensing measurements are obtained, and it can be one of two methods: Trigger-based (TB) sensing measurement instance or non-TB sensing measurement instance". However, the folloowing sections allow in 11.21.20 "DMG sensing procedure" which is not TB nor non-TB. Hence the text is wrong. It should state that DMG sensing is also an option. I suggest to repharase this sentence to state 3 options: TB, non-TB and DMG. | Revised:Including DMG in the specified sentence would not be correct as the DMG sensing procedure is covered in 11.21.20 and not 11.21.18.However, it is a valid point that additional clearification is required to the WLAN sensing descriptions in 11.21.18 to exclude DMG.To make the clearification, the opening paragraph of 11.21.18 can specify that the WLAN sensing procedure applies to non-DMG STAs.See editor note to modify the text in D0.3 88.36 as follows. |
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**Notes:**

Page 64 in D0.1 has been moved to page 79 in D0.2.

***TGbf Editor: Modify the text in D0.3 88.36 as follows:***

A WLAN sensing procedure allows a non-DMG STA to perform WLAN sensing (#89).

| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
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| 776 | 11.21.18.1 | 64.52 | A sensing measurement instance is not a time-window but is rather a prcoedure i.e., it consists of the frame exchanges. | Clarify the text to say "A sensing measurement instance is an instance of a sensing procedure between ... It consists of: ..." | Revised:Agreed it is not a time interval. Several comments applicable to the same text were combined. See editor note to modify the text in D0.3 88.43-52. |
| 814 | 11.21.18.1 | 64.54 | We have defined a sensing measurement instance is a time interval...Then we mentioned "A sensing measurement instance is active until terminated in a sensing measurement setup termination." it is a little bit confusing how a time interval could be active until terminated? | Please clarify | Revised:Agreed it is not a time interval. Several comments applicable to the same text were combined. See editor note to modify the text in D0.3 88.43-52. |
| 847 | 11.21.18.1 | 64.52 | A sensing measurement instance is not really a "time interval", but rather an exchange resulting in the ability to obtain and/or report channel measurements. | Change text to: "A sensing measurement instance is an exchange resulting in the ability to obtain and/or report channel measurements." | Revised:Agreed it is not a time interval. Several comments applicable to the same text were combined. See editor note to modify the text in D0.3 88.43-52. |
| 875 | 11.21.18.1 | 64.51 | It is not proper to call A sensing measurement instance is a time interval. | Change the sentence to "In a sensing measurement instance, one or more sensing measurements may occur. Each sensing measurement can be one of two methods: Trigger-based (TB) sensing measurement instance or non-TB sensing measurement instance." | Revised:Agreed it is not a time interval. Several comments applicable to the same text were combined. See editor note to modify the text in D0.3 88.43-52. |

**Notes:**

Describe measurement as a “frame exchange sequence resulting in the ability to obtain and/or report sensing measurements”.

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| 714 | 11.21.18.1 | 64.52 | The sentence mix the notion of an instance with the notion of a method. An instance as being one of two methods... | The purpose of the sentence is to introduce TB and non.TB sensing. I believe it is nicer to do this by writing “The sensing measurement can be done based on two different methods, referred to as TB sensing and non-TB sensing.” Alternatively, one may intoduce it in a more length way by taking interms of measurement instances. If so “two methods” should be replaced by “two measuring instances” | Revised:Agree in principle. Revision made to describe as “two variants of sensing measurement instance are specified”.See editor note to modify the text in D0.3 88.43-52. |

**Notes:**

Describe as “Two variants of sensing measurement instance are specified”.

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| 777 | 11.21.18.1 | 64.55 | The sensing measurement termination is not a typical phase. Furthermore, the session may also end for other reasons e.g., after disassociating a STA. | Delete "in a sensing measurement setup termination". | Revised:Text added in section 11.21.18.8 describes both an explicit and implicit measurement setup termination. Incorporate explicit and implicit termination.See editor note to modify the text in D0.3 88.43-52. |

**Notes:**

Indicate “measurement setup may be explicitally terminated in a sensing measurement setup termination, or implicitally terminated”.

***TGbf Editor: Modify the text in D0.3 88.43-52 as follows:***

In the sensing session setup, a sensing session is established, and in the sensing measurement setup, operational parameters associated with sensing measurement instance(s) are set(#429, #665, #848, #852, #853, #854, #856, #858, #859, #841). A sensing measurement instance is a ~~time interval~~ frame exchange sequence resulting in~~when~~ obtaining and/or reporting sensing measurements ~~are obtained~~(#776, #814, #847, #875)~~,~~. ~~and it can be one of two~~Two variants(#605) of sensing measurement instance are specified: Trigger-based (TB) sensing measurement instance (see 11.21.18.6 (TB sensing measurement instance))(#186) ~~or~~and non-TB sensing measurement instance (see 11.21.18.7 (Non-TB sensing measurement instance))(#186, #714). A sensing measurement setup(#138) is active until either explicitly terminated in a sensing measurement setup termination, or implicitly terminated (see 11.21.18.8 (Sensing measurement setup termination)) (#777). In the sensing session termination, a sensing session is terminated.

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| 187 | 11.21.18.1 | 64.54 | "A sensing measurement instance is active until terminated in a sensing measurement setup termination." This should be "A sensing measurement setup is active until terminated in a sensing measurement setup termination", because a sensing measurement instance can be terminated after the corresponding frame exchange sequence is over. | As in comment. | Revised:A revision was made by CID 138 to modify “measurement **instance**” to “measurement **setup**”, which aligns with the “setup termination”. |
| 606 | 11.21.18.1 | 64.54 | "A sensing measurement instance is active until terminated in a sensing measurement setup termination", does this mean the instance ID shall not be reused corresponding to an MS? | Change the sentence to "A sensing measurement instance is active until the report of the instance has been obtained". | Revised:A revision was made by CID 138 to modify “measurement **instance**” to “measurement **setup**”, which aligns with the “setup termination”. |
| 849 | 11.21.18.1 | 64.54 | The sensing measurement setup termination terminates a sensing measurement setup, not a sensing instance. A sensing instance includes phases but does not have a termination. | Change text to:"A sensing measurement setup is active until terminated in a sensing measurement setup termination." | Revised:A revision was made by CID 138 to modify “measurement **instance**” to “measurement **setup**”, which aligns with the “setup termination”. |

**Notes:**

Change “measurement instance” to “measurement setup”.

This change has already been implemented by CID 138 in D0.3 on 88.53-54, as follows:

*A sensing measurement ~~instance~~ setup(#138) is active until terminated in a sensing measurement setup termination.*

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| 474 | 11.21.18.1 | 65.04 | The set of operational attributes used in a sensing measurement instance are also determined in the sensing measurement setup. | It implies all of the attributes for measurement instance ID are determined in Measurement Set-up, but it is not true. It should be changed to "Some set of operational attributes used in a sensing measurement instance are also determined in the sensing measurement setup." | RevisedComment has been addressed by previous changes made in D0.2. |

**Notes:**

Page 65 in D0.1 has been moved to page 80 in D0.2.

The original text in D0.1 is as follows:

*As defined in 11.21.18.3 (Sensing session setup), the sensing transmitter and sensing receiver roles are*

*determined during the sensing measurement setup. The set of operational attributes used in a sensing measurement*

*instance are also determined in the sensing measurement setup.*

The modified text in D0.2 is as follows:

*As defined in 11.21.18.4 (Sensing measurement setup)(#188, #231, #342, #745), operational parameters*

*associated with sensing measurement instance(s) are set in the sensing measurement setup(#429, #665,*

*#848, #852, #853, #854, #856, #858, #859, #841).*

The changes incorporated between D0.1 and D0.2 have addressed the comment, as it is explicit which operational parameters are set in the measurement setup.

**References:**

[1] Draft P802.11bf\_D0.1

[2] Draft P802.11bf\_D0.2

[3] Draft P802.11bf\_D0.3