IEEE P802.11
Wireless LANs

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| Comment Resolution for CIDs Related to WLAN Sensing Procedure Overview (11.21.18.1) |
| Date: 2022-08-07 |
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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.

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

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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:Several comments applicable to the same paragraph were combined. |
| 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:Several comments applicable to the same paragraph were combined. |

**Note:**

Page 64 in D0.1 has been moved to page 79 in D0.2. The relevant line numbers are unchanged.

***TGbf Editor: Modify the text in D0.2 79.40-43 as follows:***

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

Note: The sensing measurement setup and sensing measurement setup termination are pairwise as indicated in Figure 11-41a. Similarly, the sensing session setup and sensing session termination are pairwise.

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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. |
| 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:Several comments applicable to the same paragraph were combined. |
| 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:Several comments applicable to the same paragraph were combined. |
| 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. Several comments applicable to the same paragraph were combined. |
| 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:Several comments applicable to the same paragraph were combined. |
| 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:Several comments applicable to the same paragraph were combined. |
| 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:Several comments applicable to the same paragraph were combined. |
| 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:Several comments applicable to the same paragraph were combined. |
| 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:Several comments applicable to the same paragraph were combined. |
| 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:Several comments applicable to the same paragraph were combined |

**Note:**

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

***TGbf Editor: Modify the text in D0.2 79.38 as follows:***

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

***TGbf Editor: Modify the text in D0.2 79.45-55 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). One or more sensing measurement setups may be established between a sensing initiator and a sensing responder. A sensing measurement instance is a ~~time interval~~ frame exchange sequence resulting in the ability to~~when~~ obtain and/or report sensing measurements ~~are obtained~~(#714, #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). An active sensing measurement ~~instance~~setup (#187, #606) ~~is active until~~may be terminated ~~in~~by a sensing measurement setup termination (#777, #849). In the sensing session termination, a sensing session is terminated.

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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." | Revised |

**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 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.

***TGbf Editor: Modify the text in D0.2 80.1-4 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, #474, #665,

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

**References:**

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

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