IEEE P802.11
Wireless LANs

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| CC40 CR for Instance CIDs – Part 1 |
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**Abstract**

This document proposes comment resolutions for CID 153, 154, 127 and 789.

R0: initial version.

# CID 153, 154

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| **CID** | **Subclause** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 153 | 11.21.18.6 | 68.16 | "It includes one or more of the following phases: Polling phase, NDPA sounding phase, Trigger frame (TF) sounding phase, and reporting phase.". This sentence is confusing and open for many interpretations some of which may be wrong and not intended by the specification text:1- Would we interpret 'one or more' as one or more of each phase or one and only one of each phase but many phases in the same instance? | Rephrase the sentence to clarify the intended meaning, one suggestion is " It includes one or more of each phase of the following phases ..." | REVISED. Please incorporate the changes in 11/22-1914r0 under “Modification” for CIDs 153, 154. |
| 154 | 11.21.18.6 | 68.16 | "It includes one or more of the following phases:" This sentence reads as if each instance shall have at least one of each phase, which is not true. In some scenarios there may be only the polling phase, but no other phases. When no STAs respond to the polling trigger, there should be no other phases in this TB instance. | Rephrase the sentence to " It includes one or more Polling phase, and zero or more of each phase of the following phases: ..." |

**Discussion:**

I agree with the commenter in principle that this sentence may cause confusion. By “one or more of the following phases”, one interpretation is one or multiple different phases of the following phases. Another interpretation is like the comment that one or more of each phase of the following phases. It might be worthwhile to list all possible scenarios. Based on some of the discussions we had earlier,

* Polling phase:
	1. The polling phase is present if at least one non-AP STA is assigned to be polled. It is up to the AP to decide whether or not to poll again if no non-AP STA responds in the polling phase. (1244r7, Motion 131)
		+ Since one polling phase consists of at most one Sensing Polling Trigger frame (1244r7, Motion 131), if the AP polls again, it means there are more than one polling phases in a TB sensing measurement instance.
* Sounding phase:
	1. If the polling phase is present, the presence of TF and/or NDPA sounding phase depends on the response result of the polling phase. If no non-AP STA responds in the polling phase, the AP can choose not to proceed with TF or NDPA sounding phase. (1244r7, Motion 131) This means a TB sensing measurement instance can only consist of a polling phase.
	2. If the sounding phase is present, there should be only one TF sounding phase or one NDPA sounding phase, or one TF sounding phase and one NDPA sounding phase. One TF sounding phase can consist of multiple sounding trigger frames.
* Reporting phase:
	1. The reporting phase is present if the Sensing Measurement Report Requested subfield within the Sensing Measurement Setup Request frame is set to 1. (D0.4)
	2. The reporting phase shall be coupled with the sounding phase in a TB sensing measurement instance. (Ad-hoc discussion)

The presence of each phase in a TB sensing measurement instance can be summarised as

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| Presence | **Polling phase(s)** | **NDPA and/or TF sounding phase** | **Reporting phase** |
| One phase | $$√$$ |  |  |
|  | $$√$$ |  |
| Two phases | $$√$$ | $$√$$ |  |
|  | $$√$$ | $$√$$ |
| All phases | $$√$$ | $$√$$ | $$√$$ |

**Modification (#153, #154):**

## *TGbf Editor: Please modify the text at P104L24 in subclause 11.55.1.5.2.1 in D0.4 as follows.*

**11.55.1.5.2 TB sensing measurement instance**

**11.55.1.5.2.1 General**

TB sensing measurement instance is the trigger-based variant of a sensing measurement instance. It is applicable to scenarios where an AP is the sensing initiator, and one or more non-AP STAs are the sensing responders. It includes at most one or more ~~of the following phases:~~ ~~P~~ polling phases, an NDPA sounding phase, a Trigger frame (TF) sounding phase, and a reporting phase. (#153, #154)

# CID 789

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| **CID** | **Subclause** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 789 | 11.21.18.6.1 | 69.44 | In order for the AP to unambigously determine presence of a STA in the availability period, the CTS frames need to be sent in a TB PPDU | Reuse the 11az Ranging Poll TF as Sensing Polling TF and clarify that the CTS-t-0-self frames are sent in TB PPDU. | REVISED. Please incorporate the changes in 11/22-1914r0 under “Modification” for CIDs 789. |

**Discussion:**

Based on the discussions, the majority of TGbf have agreed to reuse 11az Ranging trigger frames for Sensing trigger frames. I agree with the commenter to clarify the transmission of CTS-to-self in the text. 11.21.18.6.1 Polling phase in D0.1 has been moved to 11.55.1.5.2.2 Polling phase in D0.4.

**Modification (#789):**

## *TGbf Editor: Please modify the text at P106L3 in subclause 11.55.1.5.2.2 in D0.4 as follows.*

The AP shall send a Sensing Polling Trigger frame to one or more STAs and shall allocate each RU indicated in the Polling Trigger frame to only one STA(#163). Any STA addressed by a User Info field in a Sensing Polling Trigger frame may request to participate in the TB sensing measurement instance by responding with a CTS-to-self frame within an HE TB PPDU in its designated RU allocation as identified in the Sensing Polling Trigger frame(#760, #789).

# CID 127

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| **CID** | **Subclause** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 127 | 11.21.18.6.4 | 70.43 | "multiple sensing measurement setups of a sensing responder may be included in a single Sensing Measurement Report frame.". What does it mean to include a "measurement setup" in a Measurement Report? | Clarify | REJECTED.In the original text in D0.1, it is not the measurement setup that is included in a measurement report. Instead, it is the sensing measurement reports of measurement setups that may be included in a measurement report frame. The text is correct so no change is required.  |

**Discussion:**

