IEEE P802.11
Wireless LANs

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| CRs for CC40 11bf D0.1 SBP Miscellaneous CIDs |
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Abstract

This submission proposes resolutions of comments received from TGbf comment collection 40 (TGbf Draft 0.1).

* CIDs: 12, 302, 320 (3 CIDs)

Revisions:

* Rev 0: Initial version of the document to initiate discussion.
1. **Introduction**

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGbf Draft. The introduction and the explanation of the proposed changes are not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbf Draft (i.e., they are instructions to the 802.11bf editor on how to merge the text with the baseline documents).***

***TGbf Editor: Editing instructions preceded by “TGbf Editor” are instructions to the TGbf editor to modify existing material in the TGbf draft. As a result of adopting the changes, the TGbf editor will execute the instructions rather than copy them to the TGbf Draft.***

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| CID | Commenter | Clause  | Page | Line | Comment | Proposed Change | Resolution |
| 12 | Rajat Pushkarna | 11.21.19.1 | 72 | 58 | SBP is a procedure that allows a non-AP STA to request an AP to perform WLAN sensing (see 11.21.18) on its behalf. Is it assumed that the AP supports SBP? What about the scenario where AP is a legacy AP i.e. non-11bf compatible AP? | Use case for sensing by proxy must also cater to scenarios where AP is a legacy AP. It is possible in some scenarios where AP is not an 11bf capable AP but the STAs are 11bf capable STAs. |  |
| 302 | Rojan Chitrakar | 9.6.7.49 | 57 | 40 | When a sensing measurement setup is being performed as part of a SBP procedure, the sensing responder may need to verify the identity of the SBP Initiator to decide whether or not to accept the a sensing measurement setup request. As such, the Sensing Measurement Setup Request frame should carry the ID of the SBP Initiator. | Add an ID field in the Sensing Measurement Setup Request frame to carry the ID (e.g., MAC Address) of the SBP Initiator when a sensing measurement setup is being performed as part of a SBP procedure. |  |
| 320 | Rojan Chitrakar | 11.21.19.2 | 73 | 1 | Since an AP would have better information of the potential sensing responders in its BSS, an SBP Initiator would greatly benefit from being able to access such information (e.g., supported features, locations, link metrices etc.) from the AP. While the topic was discussed in 11bf in the past, it was not followed up in enough details citing security concerns. This proposal has merit even beyond sensing and should be given due consideration. | Add signaling to enable the SBP Initiator to access information of the potential sensing responders in the AP's BSS(e.g., supported features, locations, link metrices etc.) from the AP. If security is an concern, additional access validation can be performed to ensure the SBP Initiator is qualified to access such information. |  |

**Baseline is D0.3**.

SP: Do you agree to incorporate the changes provided in IEEE 11-22-1783r0 for the following CIDs to the next revision of 802.11bf draft: 12, 302, 320?

**Discussion:**

CID 12: SBP is a procedure that allows a non-AP STA to request an AP to perform WLAN sensing (see 11.21.18) on its behalf. Is it assumed that the AP supports SBP? What about the scenario where AP is a legacy AP i.e., non-11bf compatible AP?



Example: AP-1 doesn’t support SBP but AP-2 supports SBP. STA-5 can’t connect to AP-2 directly (e.g., out of range, or operating in different frequency band etc.).

Q: Can SBP be extended such that STA-5 can perform sensing measurements with STA-6, STA-7?

Proposal:

SBP frames are encapsulated in Data frame (e.g., Ethertype 89-0d frame):



A new Ethertype 89-0d payload type is defined for SBP. The Payload field carries the frame body of the SBP frame. This enables the SBP frames to be forwarded between AP-1 and AP-2. **AP-2 acts as the SBP Responder.**



CID 302: When a sensing measurement setup is being performed as part of a SBP procedure, the sensing responder may need to verify the identity of the SBP Initiator to decide whether or not to accept the sensing measurement setup request. As such, the Sensing Measurement Setup Request frame should carry the ID of the SBP Initiator.



Example: AP-1 initiates sensing measurement setup requests with STA-6 upon receiving SBP Request from STA-5.

Q: Should STA-6 be able to know that the sensing measurement setup request is for SBP and can it verify the identity of the SBP Initiator (STA-5)?

Proposal:

When the Sensing Measurement Setup is performed for SBP, the Sensing Measurement Setup Request frame carries indication that the setup is a part of SBP and also includes the ID (e.g., MAC Address) of the SBP Initiator. The responding STA may use the ID of the SBP Initiator to decide whether it accepts the Sensing Measurement Setup Request or not.

CID 320: Since an AP would have better information of the potential sensing responders in its BSS, an SBP Initiator would greatly benefit from being able to access such information (e.g., supported features, locations, link metrices etc.) from the AP. While the topic was discussed in 11bf in the past, it was not followed up in enough details citing security concerns. This proposal has merit even beyond sensing and should be given due consideration.



An SBP Initiator can specify the addresses/IDs of the Sensing Responders in the SBP Request frame. However, there currently there is no mechanism for the SBP Initiator to obtain such information from the AP.



Proposal:

Allow a non-AP STA (SBP Initiator) to solicit information of an AP’s associated non-AP STAs from an AP.

A new Action frame (e.g., Client Discovery Query) is proposed for the SBP Initiator to to soliciti MAC Address, Operating bandwidth of non-AP STAs that support 11bf:



The AP (SBP Responder) responds with the Client Discovery Response frame that carries the relevant information (e.g., MAC Address, Operating bandwidth) of its associated non-AP STAs.



The SBP Initiator uses the information to select Sensing Responders for the SBP procedure.