IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Resolution for CIDs related to Multiple BSSID – Part 3 | | | | |
| Date: September 15, 2019 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Abhishek Patil | Qualcomm Inc. |  |  | appatil@qti.qualcomm.com |
| Alfred Asterjadhi | Qualcomm Inc. |  |  | aasterja@qti.qualcomm.com |
| George Cherian | Qualcomm Inc. |  |  | gcherian@qti.qualcomm.com |

Abstract

This submission proposes resolutions for CID 20021 received for TGax LB238

Revisions:

* Rev 0: Initial version of the document.

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 TGax Draft. This introduction is not part of the adopted material.

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

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Pg/Ln** | **Section** | **Comment** | **Proposed Change** | **Resolution** |
| 20021 | Abhishek Patil | 154.24 | 9.4.2.170.2 | What is the need to have two fields to signal if the reported AP is a nonTxBSSID in a multiple BSSID set? A single bit is sufficient. | Mark B2 as reserved and delete the paragraph descibing the Multiple BSSID subfield. Rename B3 to Nontransmitted BSSID and replace the description for Transmitted BSSID subfield with the following: "When the Nontransmitted subfield is set to 1, it indicates the reported AP is a nontransmitted BSSID in a multiple BSSID set. Otherwise the subfield is set to 0 to indicate that the reported AP is either a single BSS AP or a transmitted BSSID in a multiple BSSID set." Replace the paragraph starting on P433L46 in clause 26.17.2.4 with: "If the 6 GHz AP reported in a TBTT Information field in a Reduced Neighbor Report is not part of a multiple BSSID set or is the transmitted BSSID in a multiple BSSID set, then the BSS Parameters subfield shall be included with the Nontransmitted BSSID subfield set to 0. If the 6 GHz AP reported in a TBTT Information field in a Reduced Neighbor Report is the nontransmitted BSSID in a multiple BSSID set, then the BSS Parameters subfield shall be included with the Nontransmitted BSSID subfield set to 1. Note: A non-AP STA scanning on the 6GHz channel can identify the transmitted BSSID based on the Beacon frame that carried Multiple BSSID element with the value n in the MaxBSSID Indicator field such that 48-n bits (BSSID[0:(47-n)]) is the same as the reported nontransmitted BSSID." | **Revised**  doc 11-19/1520r1 provides several fixes/clarifications related to advertisement of RNR in a Multiple BSSID (esp, for 6GHz discovery) scenario.  The doc also covers a few non-RNR related multiple BSSID changes necessary to address ambiguities in the spec.  **TGax editor, please make changes as shown in doc 11-19/1520r1** |

**ITEM #1: Discovery of nonTxBSSIDs in a 6 GHz only multiple BSSID set**

**Discussion:**

Background: Per in-band scanning rules (26.17.2.3.3), a non-AP STA scanning on a non-PSC is not allowed to send a Probe Request frame unless/until it has received a Beacon or Probe Response or FILS Discovery frame, matching the SSID it is looking for. Put in other words, the STA is allowed to send a Probe Request frame carrying SSID or BSSID that matches the SSID/BSSID of the AP from it which it has received a Beacon/Probe Response/FD frame. In many cases, the client device is looking for a known set of SSIDs based on stored profile. On a non-PSC, the STA will be allowed to send a directed probe only if it receives the above listed frames with the matching SSID.

Problem: In a multiple BSSID set, only the TxBSSID transmits FD frames – therefore, the STA can’t discover a nonTxBSSID matching the SSID that a client is looking for and as a result it can’t send a Probe or associate with the 6 GHz only AP.

Solution summary: 11ax spec needs to put a requirement that FD frame transmitted by a 6GHz-only multi-BSS AP operating includes RNR IE which carries information of all the nonTxBSSID in the multi-BSS set. This will allow the client to determine if any of the nonTxBSSIDs matches the SSID it is looking for and if so, the scanning non-AP STA can then send a Probe Request frame (directed to that SSID) to gather additional information about that (nonTx)BSSID.

Note: Beacon frame or (broadcast) Probe Response frames may advertise partial list of nonTxBSSIDs and as a results, the SSID desired by the scanning non-AP STA may not be present in all the beacons. Once the scanning STA has determined that the desired SSID is part of the multi-BSS set, the STA can make an informed decision on whether to wait for the appropriate beacon (based on the Profile Periodicity value) to get the full profile information for the matching nonTxBSSID.

**======== Proposed changes ========**

**26.17.2.3.2 AP behavior for fast passive scanning**

***TGax Editor: Please make changes to the 5th paragraph in this subclause as shown below (includes addition of two new paragraphs) :***

An AP that corresponds to a nontransmitted BSSID shall not schedule for transmission FILS Discovery frames (see 11.46.2.1) or unsolicited broadcast Probe Response frames (see 11.1.4.3.4).

If a 6 GHz-only EMA AP transmits a FILS Discovery frame, it shall include a Reduced Neighbor Report element in the FILS Discovery frame carrying discovery information (such as short SSID) of all nontransmitted BSSIDs in the multiple BSSID set that are discoverable.

If a 6 GHz-only EMA AP transmits a broadcast Probe Response frame, it shall include a Reduced Neighbor Report element in the Probe Response frame carrying discovery information (such as short SSID) of all nontransmitted BSSIDs in the multiple BSSID set that are discoverable and not carried in the Nontransmitted BSSID Profile subelement in a Multiple BSSID element.

**ITEM #1a: Generalizing advertisement of nonTxBSSIDs via RNR if frame carries partial list of profiles**

**Discussion:**

In general, the change proposed for item #1 are helpful for any scanning STA when the AP is advertising partial list of profiles. Therefore, it is recommended that an EMA AP provides such information via RNR in the frames (i.e., Beacon/Probe Response) that carry a partial list of profiles.

**======== Proposed changes ========**

* **Discovery of a nontransmitted BSSID profile**

***TGax Editor: Please make changes to the 1st paragraph in this subclause as shown below :***

An AP or PCP may choose to include only a partial list of nontransmitted BSSID profiles in the Beacon frame, S1G Beacon frame or DMG Beacon frame or to include different sets of nontransmitted BSSID profiles in different Beacon frames, S1G Beacon frames or DMG Beacon frames. An AP corresponding to the transmitted BSSID may choose to include only a partial list of nontransmitted BSSID profiles in an unsolicited broadcast Probe Response frame or a Probe Response frame sent in response to a Probe Request frame with Address 3 field set to wildcard BSSID and SSID set to wildcard. An AP advertising a complete list of nontransmitted BSSID profiles shall set the Complete List Of NonTxBSSID Profiles field of Extended Capabilities element to 1. An EMA AP operating in the 2.4 GHz or 5 GHz band should include, in its Beacon or Probe Response frame, a Reduced Neighbor Report element carrying discovery information (such as short SSID) of nontransmitted BSSIDs whose profiles are not advertised in the frame to aid fast discovery of all nontransmitted BSSIDs in the multiple BSSID set that are discoverable.

***TGax Editor: Please make changes to the 3rd paragraph in this subclause as shown below :***

An AP shall set the BSSID Count field of the Multiple BSSID Configuration element to indicate the number of active BSSIDs in the multiple BSSID set, and shall set the Profile Periodicity field to indicate the number of beacons a scanning STA is required to receive in order to discover all the active nontransmitted BSSIDs in the set. An AP corresponding to the transmitted BSSID shall send a Probe Response frame carrying Multiple BSSID element that includes, at a minimum, the nontransmitted BSSID profiles requested by the soliciting Probe Request frame.

**ITEM #2: Missing combination for Short SSID and BSS Parameters in RNR**

**Discussion:**

The current format of Reduced Neighbor Report element doesn’t support advertising a combination where the AP provides information about the TBTT Offset, Short SSID and BSS Parameters field for a neighboring AP. Such a combination must be permitted since the reporting AP may want to provide the short SSID and BSS parameters about the reported AP.

Solution summary: Add Length value 6 to Table 9-282.

**======== Proposed changes ========**

* Reduced Neighbor Report element
* Neighbor AP Information field

***TGax Editor: Please update Table 9-282 (add a new row corresponding to length 6 and strikethrough value ‘6’ for Reserved case) :***

***Change Table 9-282 (TBTT Information field contents) as follows:***

|  |  |
| --- | --- |
| * **TBTT Information field contents** | |
| **TBTT Information Length subfield value** | **TBTT Information field contents** |
| 6 | The Neighbor AP TBTT Offset subfield, the Short-SSID subfield, and the BSS Parameters subfield |
| 0, ~~2~~3–4, ~~6, 8–10, 12–255~~ 9–10 | Reserved |

**ITEM #3: Should nonTxBSSID profile carry RNR IE?**

**Discussion:**

There is an ambiguity on whether the profile for a nonTxBSSID is allowed to carry RNR IE and if so, does the inheritance model apply.

Problem: A co-located 6 GHz AP may have SSID that matches the SSID of a nonTxBSSID in 2.4/5GHz AP. In such case, the value of the ‘Same SSID’ subfield in RNR IE advertised by 2.4/5GHz multi-BSS AP will be different based on how the RNR IE is carried. For example, if the RNR IE is carried in the nonTxBSSID profile (as a subelement) that has the same SSID as the advertised 6 GHz AP, the subfield will have a value 1. Whereas if carried as an IE in the Beacon/Probe Response of the AP corresponding to the transmitted BSSID, the subfield will have a value 0.

If each nonTxBSSID profile is allowed to carry RNR IE, it will lead to bloating of the Multiple BSSID element. Each nonTxBSSID profile will carry more or less the same information with the ‘Same SSID’ subfield set to 0 – except for one profile which will have the subfield value set to 1.

Solution: To prevent unnecessary duplication of information and frame bloating, the spec should clarify that RNR IE is not carried in the nonTxBSSID profile. Instead only the Beacon/Probe Response transmitted by the AP corresponding to the TxBSSID is allowed to carry RNR IE. In the situation described above, the Same SSID subfield will be set to 0.

**======== Proposed changes ========**

* **Reduced neighbor report**

***TGax Editor: Please make changes to the 1st paragraph in this subclause as shown below (including adding a new paragraph and a NOTE after the 1st paragraph) :***

***Change he first paragraph as follows:***

In Beacon and Probe Response frames, a Reduced Neighbor Report element may be transmitted by an AP with dot11TVHTOptionImplemented or dot11FILSActivated or dot11ColocatedRNRImplemented equal to true. In FILS Discovery frames, a Reduced Neighbor Report element is optionally sent by a FILS AP. An AP that operates in the 2.4 GHz or 5 GHz band and that is co-located with one or more APs that operate in the 6 GHz band shall follow the rules defined in 26.17.2.4 (Out of band discovery of a 6 GHz BSS) for including a Reduced Neighbor Report element in Beacon and Probe Response frames. A Reduced Neighbor Report element contains information on neighbor APs. A Reduced Neighbor Report element might not be exhaustive either by choice or by the fact that there may be neighbor APs not known to the AP.

An AP with dot11MultiBSSIDImplemented equal to true shall not include Reduced Neighbor Report element in the Nontransmitted BSSID Profile subelement of the Multiple BSSID element.

NOTE – The Beacon or Probe Response or FILS Discovery frame of an AP with dot11MultiBSSIDImplemented equal true can carry the Reduced Neighbor Report element.

***TGax Editor: Please make changes to the following paragraph in this subclause as shown below:***

If an AP reported in a TBTT Information field in a Reduced Neighbor Report element is not part of a multiple BSSID set, then the BSS Parameters subfield, if included, shall have the Multiple BSSID subfield set to 0. If an AP reported in a TBTT Information field in a Reduced Neighbor Report element is a transmitted BSSID, then the BSS Parameters subfield, if included, shall have the Multiple BSSID subfield set to 1 and the Transmitted BSSID subfield set to 1. If an AP reported in a TBTT Information field in a Reduced Neighbor Report element is a nontransmitted BSSID, then the BSS Parameters subfield, if included, shall have the Multiple BSSID subfield set to 1 and the Transmitted BSSID subfield set to 0.

**ITEM #4: TA field setting for a Multi-STA BA frame in multi-BSS TXOP**

**Discussion**

Scenario:

1. AP wins the medium (TXOP holder) and transmits a multi-BSS Trigger frame with TA set to TxBSSID.
2. AP receives HE TB PPDU from either a single non-AP STA or STAs belonging to the same BSSID

Ambiguity:

What should be the TA of the Multi-STA BA frame transmitted by the AP in response to the received HE TB PPDU?

1. Address of the single STA from which it received the HE TB PPDU?
2. Address of the single BSSID from which the AP received HE TB PPDU?
3. TxBSSID?

Per clause 10.24.2.4, the TA field for a Control frame transmitted by the TXOP holder is set to the same address during the entirety of the TXOP

Solution summary: The TA field must be set to the TxBSSID regardless of which STA(s) responded to the AP’s multi-BSS TF.

**======== Proposed changes ========**

* HE acknowledgment procedure
* Overview

***TGax Editor: Please add a NOTE following the 10th paragraph in this subclause as shown below :***

An AP that transmits a Multi-STA BlockAck frame addressed to HE STAs shall set the TA field of the frame to the MAC address of the AP unless dot11MultiBSSIDImplemented is true and the Multi-STA BlockAck frame is directed to STAs from at least two different BSSs of the multiple BSSID set, in which case, the AP shall set the TA field of the frame to the transmitted BSSID.

NOTE – An AP sets the TA field of the Multi-STA BlockAck frame to the transmitted BSSID when the TXOP is obtained from the transmitted BSSID, independently of the BSS in which the STA(s) soliciting the Multi-STA BlockAck frame are associated (see 10.24.2.4).

An AP shall not transmit a Compressed BlockAck frame addressed to non-AP STAs associated with an AP corresponding to nontransmitted BSSID when the TXOP holder is the transmitted BSSID.

**ITEM #5: Clarify order of IEs in Nontransmitted BSSID Profile subelement**

**Discussion:**

There is an ambiguity with respect to the order in which the SSID and Multiple BSSID-Index element appears in the Multiple BSSID element.

Solution summary: Clarify that the SSID element appears as the second element in the profile followed by the Multiple BSSID-Index element.

**======== Proposed changes ========**

* **Multiple BSSID element**

***Change the 7th paragraph as follows:***

***TGax Editor: Please make changes to the following paragraph in this subclause as shown below :***

~~The Nontransmitted BSSID Profile subelement contains a list of elements for one or more APs or DMG STAs that have nontransmitted BSSIDs~~ A nontransmitted BSSID profile carried in one or more Nontransmitted BSSID Profile subelements across one or more multiple BSSID elements in the same frame contains a list of elements for the AP or the DMG STA that has a nontransmitted BSSID, and is defined as follows:

* The SSID element (see 9.4.2.2 (SSID element)) and multiple-BSSID-index ~~subelements~~ element (see 9.4.2.73 (Multiple BSSID-Index element)) are included as the second and third elements respectively ~~in the Nontransmitted BSSID Profile subelement~~.
* **Nontransmitted BSSID profile**

***TGax Editor: Please make changes to the following paragraphs in this subclause as shown below (including adding a new figure and replacing figure 11-3a) :***

A nontransmitted BSSID profile represents information about a particular nontransmitted BSSID and consists of a set of elements that are carried in one or more Nontransmitted BSSID Profile subelements across one or more multiple BSSID elements in the same frame. Each nontransmitted BSSID profile, at a minimum, shall include the elements that are mandatory for that BSS (i.e., Nontransmitted BSSID Capability element, SSID element, Multiple BSSID-Index element) as described in 9.4.2.45 (Multiple BSSID element). An example of Multiple BSSID element carrying one or more Nontransmitted BSSID Profile subelement(s) is shown in Figure 11-3x. The figure also shows the order in which the elements are present within each Nontransmitted BSSID Profile subelement.

***TGax Editor: Please add a new figure after this paragraph as shown below [Visio file: 11-19/1552r0] :***



**Figure 11-3x – Example of a Multiple BSSID element carrying Nontransmitted BSSID Profile subelements(s)**

A nontransmitted BSSID profile consists of all elements carried in all such Multiple BSSID elements sharing the same BSSID index. An AP shall not carry a nontransmitted BSSID profile across multiple Multiple BSSID elements in a frame unless the nontransmitted BSSID profile cannot be carried in one multiple BSSID element due to the size limit of the multiple BSSID element.

If there is a need to split a nontransmitted BSSID profile across more than one Multiple BSSID element in a frame, an AP shall not split an element in the profile into multiple Multiple BSSID elements, and it shall place the next element in the nontransmitted BSSID profile as the first element in the first nontransmitted BSSID profile subelement of the immediately following Multiple BSSID element.

An example of a nontransmitted BSSID profile split across two Multiple BSSID elements in a frame is shown in Figure 11-3a (Example of a split nontransmitted BSSID profile).

***TGax Editor: Please replace figure 11-3a as shown below [Visio file: 11-19/1558r0] :***

|  |
| --- |
|  |
|  |
| * **Example of a nontransmitted BSSID profile split across multiple Multiple BSSID elements** |

NOTE—As described in 9.4.3 (Subelements), the Length field of the Nontransmitted BSSID Profile subelement indicates the number of octets only in the Data field of the subelement.

**ITEM #6: Editorial / consistency with baseline spec**

**Discussion:**

Unless explicitly called out in the corresponding comment, this section covers editorial changes to make the text consistent with the latest updates to the baseline (REVmd D2.4) spec.

**======== Proposed changes ========**

* **Multiple BSSID element**

***Change the 7th paragraph as follows:***

***TGax Editor: Please make changes to the following paragraph in this subclause as shown below :***

~~The Nontransmitted BSSID Profile subelement contains a list of elements for one or more APs or DMG STAs that have nontransmitted BSSIDs~~ A nontransmitted BSSID profile carried in one or more Nontransmitted BSSID Profile subelements across one or more multiple BSSID elements in the same frame contains a list of elements for the AP or the DMG STA that has a nontransmitted BSSID, and is defined as follows:

* ~~For each nontransmitted BSSID, t~~ The Nontransmitted BSSID Capability element (see 9.4.2.71 (Nontransmitted BSSID Capability element)) is the first element included, followed by a variable number of elements, in the order defined in Table 9-34 (Beacon frame body) for a non-DMG non-S1G AP or Table 9-41 (DMG Beacon frame body) for a DMG AP or Table 9-48 (Minimum and full set of optional elements) for a S1G AP.
* The SSID element (see 9.4.2.2 (SSID element)) and Multiple BSSID-index ~~subelements~~ element (see 9.4.2.73 (Multiple BSSID-Index element)) are included ~~in the Nontransmitted BSSID Profile subelement~~.
* The FMS Descriptor element (see 9.4.2.74 (FMS Descriptor element)) is included ~~in the Nontransmitted BSSID Profile subelement~~ if dot11FMSActivated is true for the BSS using this nontransmitted BSSID and if the Multiple BSSID element is included in a Beacon frame .
* The Timestamp and Beacon Interval fields, TIM, DSSS Parameter Set, IBSS Parameter Set, Country, Channel Switch Announcement, Extended Channel Switch Announcement, Wide Bandwidth Channel Switch, Transmit Power Envelope, Supported Operating Classes, IBSS DFS, ERP Information, HT Capabilities, HT Operation, VHT Capabilities, VHT Operation, S1G Beacon, Compatibility, Short Beacon Interval, S1G Capabilities, ~~and~~ S1G Operation, HE Capabilities, HE 6 GHz Band Capabilities, HE Operation, BSS Color Change Announcement, and Spatial Reuse Parameter Set elements are not included in the Nontransmitted BSSID Profile subelement; the values of these elements for each nontransmitted BSSID are always the same as the corresponding transmitted BSSID element values.
* When included in the Nontransmitted BSSID Profile subelement for this nontransmitted BSSID, the Non-Inheritance element (see 9.4.2.241 (Non-Inheritance element)) appears as the last element in the profile and carries a list of elements that are not inherited by this nontransmitted BSSID from the transmitted BSSID.
* **General**

***TGax Editor: Please make changes to the following paragraphs in this subclause as shown below :***

~~The nontransmitted BSSID profile shall include the SSID element (see 9.4.2.2 (SSID element)) and Multiple BSSID-Index element (see 9.4.2.73 (Multiple BSSID-Index element)) for each of the supported BSSIDs. The AP or PCP may include all other elements in the nontransmitted BSSID profile. The AP or PCP may include two or more Multiple BSSID elements containing elements for a given BSSID index in one Beacon frame or DMG Beacon frame. If two or more are given, the profile is considered to be the complete set of all elements given in all such Multiple BSSID elements sharing the same BSSID index. Since the Multiple BSSID element is also present in Probe Response frames, an AP or PCP may choose to advertise the complete or a partial profile of a BSS corresponding to a nontransmitted BSSID only in the Probe Response frames. In addition, the AP or PCP may choose to include only a partial list of nontransmitted BSSID profiles in the Beacon frame or DMG Beacon frame or to include different sets of nontransmitted BSSID profiles in different Beacon frames or DMG Beacon frames. An AP advertising a complete list of nontransmitted BSSID profiles shall set the Complete List Of NonTxBSSID Profiles field of Extended Capabilities element to 1.~~

~~NOTE—A non-AP STA can send a Probe Request frame to an AP to gather information about all BSSIDs in the multiple BSSID set when the AP advertises partial list of nontransmitted BSSID profiles.~~

An AP with dot11MultiBSSIDImplemented equal to true shall set the Co-Hosted BSS subfield in HE Operation element that it transmits to 0.

* **Inheritance of element values**

***Change the 4th paragraph as follows:***

***TGax Editor: Please make changes to the following paragraph in this subclause as shown below :***

~~When a station receives a Beacon frame or DMG Beacon frame with a Multiple BSSID element that consists of a nontransmitted BSSID profile with only the mandatory elements, it may inherit the complete profile from a previously received Beacon frame, DMG Beacon frame, or Probe Response frame, or it may send a Probe Request frame to obtain the complete BSSID profiles. Each Beacon element not transmitted in a nontransmitted BSSID subelement is inherited from previous Beacon, DMG Beacon, or Probe Response frame in which the element is present, except for the Quiet element, which shall take effect only in the Beacon frame or DMG Beacon frame that contains it and not carry forward as a part of the inheritance. An AP or PCP is not required to include all supported nontransmitted BSSID profiles in a Probe Response frame, and may choose to only include a subset based on any criteria.~~ When a nontransmitted BSSID profile is present in ~~the~~ one or more Multiple BSSID elements of ~~the~~ a Probe Response frame or a Beacon frame, the AP or PCP shall include all elements that are specific to this BSS. An element is considered to be specific to a BSS if its value is different from the corresponding element advertised by the transmitted BSSID or if the nontransmitted BSSID satisfies the condition as specified in the Table 9-34 (Beacon frame body) for a non-DMG non-S1G AP, Table 9-47 (DMG Beacon frame body) for a DMG AP or Table 9-48 (Minimum and full set of optional elements) for a S1G AP for that element to be present while the transmitted BSSID does not satisfy the corresponding condition. If any of the ~~optional~~ elements carried in the Probe Response frame, Beacon frame or DMG Beacon frame or S1G Beacon frame of the transmitted BSSID are not present in a nontransmitted BSSID profile, the ~~corresponding values are the element~~ values to use for the nontransmitted BSSID are the values of the corresponding element of the transmitted BSSID unless the element is listed in the Non-Inheritance element (if included) in the nontransmitted BSSID profile for that BSS.

* **Traffic advertisement in a multiple BSSID set**

***TGax Editor: Please make changes to the following paragraph in this subclause as shown below :***

The Partial Virtual Bitmap field of the TIM element carried in the Beacon, S1G Beacon, DMG Beacon, or TIM frame shall indicate the presence or absence of traffic to be delivered to all stations associated to a transmitted or nontransmitted BSSID. The first 2*n* bits of the bitmap are reserved for the indication of group addressed frame for the transmitted and all nontransmitted BSSIDs (see 9.4.2.5.1 (General)). The AID space is shared by all BSSs and the lowest AID value that shall be assigned to a non-S1G STA is 2*n* (see 9.4.2.5 (TIM element)). The decimal value of the 11 LSBs of the AID assigned to an S1G STA shall be greater than 2*n*. The Encoded Blocks that contain these first 2*n* AIDs (if any) shall precede the Encoded Blocks that contain AIDs for the S1G STAs in the S1G Partial Virtual Bitmap field of each page. Each BSS of the Multiple BSSID set may have a different DTIM interval which is signaled in the DTIM Period and DTIM Count fields that are present in the Multiple BSSID-Index element carried in the nontransmitted BSSID profile for that BSS.

* **FILS Discovery frame transmission**

***Insert the following at the end of the subclause:***

***TGax Editor: Please make changes to the following paragraph in this subclause as shown below :***

of the FILS Discovery frame .

For the APs in a multiple BSSID set, only the AP corresponding to the transmitted BSSID may transmit a FILS Discovery frame. If dot11MultiBSSIDImplemented is true, then the following applies to the fields in the FILS Discovery frame:

* The SSID or Short SSID field shall be set to the SSID or short SSID, respectively, of the transmitted BSSID
* The FILS Capability field shall be present and the Multiple BSSIDs Presence Indicator subfield shall be set to 1