IEEE P802.11  
Wireless LANs

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| Resolution for CIDs assigned to Abhi | | | | |
| Date: May 8th 2023 | | | | |
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Abstract

This submission proposes resolution for the following CIDs received against REVme D3.0 during LB273: 4000 4001 4002 4003 4004 4372 4394

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Minor updates when the doc was presented during REVme PM2 session on 5/15/23

***TGm editor: Please note baseline for this document is REVme D3.0***

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

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

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| **CID** | **Commenter** | **Page** | **Line** | **Section** | **Comment** | **Proposed Change** | **Resolution** |
| 4000 | Abhishek Patil | 1034.00 | 24 | 9.4.2.44 | 1> Clause 11.1.3.8.4 refers to the tables in clause 9.3.3 for inclusion of specific elements in a nonTxBSSID profile. 2> Condition for inclusion of FMS Descriptor element in an mgmt frame is stated in the tables in clause 9.3.3  Therefore, part of the 1st bullet (starting "followed by a ...") and the contents of the 3rd bullet are already covered by the 4th bullet (since it refers to clause 11.1.3.8.4). | 1) Merge 1st and 2nd bullet after deleting the content starting "... a variable number of elements ...". 2) Delete the 3rd bullet (related to FMS Descriptor element) 3) Update clause 11.1.3.8.4 to include a statement explain that 'when present, the specific elements are in the order defined in the respective tables in clause 9.3.3.' 4) There is no need to make section references for each element that appears in this paragraph (i.e., delete references such as "(see 9.4.2.2 (SSID element))"). | **Revised**  Agree in principle. The text in 9.4.2.44 and 11.1.3.8.4 is updated as suggested by the comment. In addition, missing reference to Probe Response is added to the 2nd bullet in 11.1.3.8.4.  **TGm editor, please make changes as shown in 11-23/0784r1 tagged as 4000.** |
| 4001 | Abhishek Patil | 1035.00 | 6 | 9.4.2.44 | Multiple BSSID element can be carried in an S1G Beacon as well. | Add "in S1G Beacon frames (as described in 9.3.4.3 (S1G Beacon frame format)), " between "in Beacon frames (...), " and "in DMG Beacon frames (...)" | **Accepted** |
| 4002 | Abhishek Patil | 1398.00 | 35 | 9.4.2.259 | The sentence is too long and confusing. Split it to cover each case separately. | Suggest modifying & splitting the sentence as: "The Index Adjustment TBTT Count field is present if and only if the Index Adjustment Factor field is present and is nonzero. When present, the Index Adjustment TBTT Count field is set to the number of TBTTs until a BSSID index adjustment occurs (as described in 11.1.3.8.6 (Multiple BSSID Index Adjustment Procedure))." | **Revised**  Agree with the comment. The sentence is split and simplified as suggested the comment. In addition, the corresponding normative text is updated to clarify that procedure applies only when the Index Adjust TBTT Count field carries a nonzero value. Editorial clarifications to the 4th paragraph in 11.1.3.8.6.  **TGm editor, please make changes as shown in 11-23/0784r1 tagged as 4002.** |
| 4003 | Abhishek Patil | 2353.00 | 7 | 11.1.3.8.6 | The spec must clarify aspects related to inheritance after the adjustment has been made. | Add a 3rd bullet as follows: "The elements carried in each nontransmitted BSSID profile shall be based on inheritance as described in clause 11.1.3.8.4 with respect to the new transmitted BSSID." | **Revised**  Agree with the comment. A new bullet is added as suggested by the comment. A bullet to cover buffered group address indication is also added (and the corresponding NOTE (3) is deleted). In addition, a few editorial updates were made along the way and a paragraph is added to the subclause to explain the behavior at the non-AP STA.  **TGm editor, please make changes as shown in 11-23/0784r1 tagged as 4003.** |
| 4004 | Abhishek Patil | 2353.00 | 13 | 11.1.3.8.6 | Express as normative text. | Change 'advertises the' to 'shall advertise the'. | **Accepted** |
| 4372 | Po-Kai Huang | 2352.00 | 48 | 11.1.3.8.6 | Comment on the following note "NOTE 1--An AP can use mechanisms such as BSS transition management to disassociate non-AP STA(s) that do not support this feature." BTM does not indicate that the Transmitted BSSID has changed, and spec does not force the client to accept the BTM Request. Spec needs to specify via a SHALL requirement that if the Transmitted BSSID is changed, the AP shall send a disassociate disassociation frame to all clients of the TransmittedBSSID or NonTransmittedBSSID that do not support this feature. | Add "If the multiple BSSID index is adjusted, a disassociation frame shall be sent to a STA that do not support multiple BSSID index adjustment procedure and are associated with the AP corresponding to the transmitted BSSID in the multiple BSSID set or the AP corresponding to a nontransmitted AP in the multiple BSSID set. | **Revised**  Agree in principle. The text is updated as suggested by the comment along with a few editorial adjustments.  **TGm editor, please make changes as shown in 11-23/0784r1 tagged as 4372.** |
| 4394 | Stephan Sand | 2352.00 | 36 | 11.1.3.8.6 | "The procedure helps ensures that" | Replace "helps ensures" with "helps to ensure" | **Accepted** |

* Multiple BSSID element[4000]

***TGm editor: Please update the following paragraph in this subclause as shown below:***

***TGm editor: Please note, the first 4 bullets are consolidated to one after the changes below are applied.***

A nontransmitted BSSID profile (see 11.1.3.8.2 (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 Nontransmitted BSSID Capability element is the first element included followed by the SSID element and Multiple BSSID-Index element which are included as the second and third elements, respectively. This is followed by any element that is specific to the nontransmitted BSSID (see 11.1.3.8.4 (Inheritance of element values) for details on the inheritance operation and what qualifies as an element specific to the nontransmitted BSSID).
* 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, S1G Operation, HE Capabilities, HE 6 GHz Band Capabilities, HE Operation, BSS Color Change Announcement, Spatial Reuse Parameter Set, Max Channel Switch Time, Quiet, Quiet Channel, and Multiple BSSID Configuration 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 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.
* Inheritance of element values[4000]

***TGm editor: Please update the following paragraph in this subclause as shown below:***

When a nontransmitted BSSID profile is present in one or more Multiple BSSID elements carried in a Probe Response frame, Beacon frame, DMG Beacon frame, or S1G Beacon frame, the profile shall include all elements that are specific to the corresponding nontransmitted BSS. An element, identified by Element ID and Element ID Extension fields (if applicable), is considered to be specific to a BSS if any of the following conditions are satisfied:

* At least one element with the same Element ID and Extended Element ID fields (if applicable) is included in the frame that carries the Multiple BSSID element, but the contents of the Information field are not the same for the nontransmitted BSSID.
* The nontransmitted BSSID satisfies the condition as specified in Table 9-67 (Probe Response frame body) for a Probe Response frame, Table 9-60 (Beacon frame body) for a non-DMG non-S1G AP, Table 9-73 (DMG Beacon frame body) for a DMG AP, or Table 9-74 (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.

When present in a nontransmitted BSSID profile, the elements appear in the same order as that in Table 9-67 (Probe Response frame body) for a Probe Response frame, Table 9-60 (Beacon frame body) for a non-DMG non-S1G AP, Table 9-73 (DMG Beacon frame body) for a DMG AP, or Table 9-74 (Minimum and full set of optional elements) for a S1G AP.

**9.4.2.259 Multiple BSSID Configuration element**[4002]

***TGm editor: Please update the first sentence in the following paragraph in this subclause as shown below:***

The Index Adjustment TBTT Count field is present if and only if the Index Adjustment Factor field is present and nonzero. When present, the Index Adjustment Factor field is set to the number of TBTTs until a BSSID index adjustment occurs (as described in 11.1.3.8.6 (Multiple BSSID Index Adjustment Procedure)).

**11.1.3.8.6 Multiple BSSID Index Adjustment Procedure**[4002]

***TGm editor: Please update the first sentence in the following paragraph in this subclause as shown below:***

When the multiple BSSID index adjustment procedure is being performed, the AP corresponding to a transmitted BSSID in a multiple BSSID set shall include the Index Adjustment Factor field of the Multiple BSSID Configuration element (see 9.4.2.259 (Multiple BSSID Configuration element)), carrying a nonzero value, in the Beacon, DMG Beacon, S1G Beacon and Probe Response frames it transmits until the time when the adjustment occurs to inform non-AP STAs associated with all the APs in the multiple BSSID set that a BSSID index adjustment is imminent.

***TGm editor: Please update the first sentence in the following paragraph in this subclause as shown below:***

At the TBTT indicated by the Index Adjustment TBTT Count field of the Multiple BSSID Configuration element, the AP transmitting the element and a non-AP STA receiving the element shall compute the updated index for each BSSID belonging to the multiple BSSID set as follows:

**11.1.3.8.6 Multiple BSSID Index Adjustment Procedure**[4003]

***TGm editor: Please update the following paragraph in this subclause as shown below:***

***TGm editor: Please delete NOTE 3 (related to group addressed BU indication) after the below mentioned changes are made.***

Following the index adjustment, the AP performs the following actions:

* The BSSID whose new index value is 0 shall take on the role of the transmitted BSSID, and subsequent Beacon, DMG Beacon, S1G Beacon and Probe Response frames shall be transmitted by the AP corresponding to this BSSID.
* The BSSID Index field in a Multiple BSSID-Index element carried in a nontransmitted BSSID profile shall advertise[4004] the new index value for that nontransmitted BSSID.
* The elements included in a nontransmitted BSSID profile shall be based on inheritance with respect to the contents of the Management frame that carries the nontransmitted BSSID profile and that is transmitted by the new transmitted BSSID (also see 11.1.3.8.4).
* The indication of buffered group addressed frames via the bits in the TIM element shall be based on the new index value for each BSSID in the set (also see 11.1.3.8.5).

Following the index adjustment, a non-AP STA performs the following actions:

* The BSSID whose new index value is 0 shall be identified as the new transmitted BSSID.
* The BSSID index for the non-AP STA’s associated AP shall be updated to the new index value and subsequently this value shall be used to determine buffered group address frames for its associated AP (also see 11.1.3.8.5).
* The inheritance as described in 11.1.3.8.4 shall be applied with respect to the new transmitted BSSID.

**11.1.3.8.6 Multiple BSSID Index Adjustment Procedure**[4372]

***TGm editor: Please update the following paragraph and NOTE 1 in this subclause as shown below:***

An AP that supports the procedure described in this subclause sets the Multiple BSSID Role Switch Support subfield in the Extended Capabilities element to 1. A non-AP STA that supports computing the new BSSID index upon receiving the Index Adjustment Factor field sets the Multiple BSSID Role Switch Support subfield in the Extended Capabilities element to 1. When the multiple BSSID index adjustment procedure is being performed, the AP should transmit a Disassociation frame to each non-AP STA that does not support this procedure.

NOTE 1 - If a non-AP STA that does not support this feature has indicated in its Extended Capabilities element that it supports BSS transition management, then the AP is recommended to indicate to that non-AP STA that disassociation is imminent and recommend other AP(s) for the non-AP STA to transition to (see 11.21.7.3).