IEEE P802.11
Wireless LANs

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| Address inconsistencies & ambiguities in 11.1.3.8 (Multiple BSSID topic) |
| Date: March 1, 2018 |
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Abstract

This submission proposes resolutions for following CID received for TGax LB230 ():

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.***

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| **CID** | **Commenter** | **Pg / Ln** | **Section** | **Comment** | **Proposed Change** | **Resolution** |
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* **Multiple BSSID procedure**

***TGax Editor: Please modify the following two paragraphs in this section (802.11-2016):***

The nontransmitted BSSID profile shall include the mandatory elements (i.e., the Nontransmitted BSSID Capability element (see 9.4.2.72), SSID element (see 9.4.2.2) and Multiple BSSID-Index element (see 9.4.2.74)) 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~~ An 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 HE AP advertising a complete list of nontransmitted BSSID profiles shall set the Complete List Of NonTxBSSID Profiles field of Extended Capabilities element to 1. Otherwise it shall set the field to 0. A non-AP HE STA may send a probe request frame to an HE AP when it receives a Beacon frame or DMG Beacon frame with Complete List Of NonTxBSSID Profiles field of Extended Capabilities element set to 0.

~~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.~~ A~~n~~ non-HE AP or PCP may ~~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~~. An HE AP shall include all supported nontransmitted BSSID profiles when responding to a Probe Request frame. When a nontransmitted BSSID profile is present in the Multiple BSSID element of the Beacon frame or DMG Beacon frame or Probe Response frame, the AP or PCP shall include all elements that are specific to this BSS. If any of the optional elements are not present in a nontransmitted BSSID profile, the corresponding values are the element values of the transmitted BSSID. An exception to this is when the AP is an HE AP and has indicated that a nontransmitted BSSID does not inherit an element from the transmitted BSSID by including a corresponding null element in the nontransmitted BSSID profile for that BSS. A null element is an element in which the Information field is absent (see 9.4.2.1) and the Length field is set to 0 when the Element ID Extension field is absent or set to 1 when the Element ID Extension field is present. When a nontransmitted BSSID profile includes one or more null elements, they shall appear after the mandatory and BSS specific elements.

* **Multiple BSSID element**

***TGax Editor: Please make the following changes to this section:***

***Change the 2nd paragraph as follows:***

The ~~Max BSSID~~ MaxBSSID Indicator field contains a value assigned to *n*, where 2*n* is the maximum number of BSSIDs in the multiple BSSID set, including the reference BSSID (see 11.11.14 (Multiple BSSID set)). The actual number of BSSIDs in the multiple BSSID set is not explicitly signaled.

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

The Nontransmitted BSSID Profile subelement contains a list of elements for one or more APs or DMG STAs that have nontransmitted BSSIDs, and is defined as follows:

* For each nontransmitted BSSID, the Nontransmitted BSSID Capability element (see 9.4.2.72 (Nontransmitted BSSID Capability element)) is the first element included, followed by a variable number of elements, in the order defined in 9-27 (Beacon frame body).
* The SSID element (see 9.4.2.2 (SSID element)) and multiple BSSID-index ~~subelements~~ element (see 9.4.2.74 (Multiple BSSID-Index element)) are included in the Nontransmitted BSSID Profile subelement.
* The 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 and if the TIM field indicates there are buffered group addressed frames for this nontransmitted BSSID.
* The Timestamp and Beacon Interval fields, 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, ~~and~~ VHT Operation, HE 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.
* Any element specific to the BSS or whose content is different from the transmitted BSSID
* Any element not inherited from the transmitted BSSID is included with its Information field absent (see 9.4.2.1) and Length field set to 0 or 1 (based on if the Element ID Extension field is present).
* **Extended Capabilities element**

***TGax Editor: Please add the following row to Table 9-135:***

***Insert the following rows into Table 9-135 (Extended Capabilities element) (header row shown for convenience):***

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| * **Extended Capabilities element**
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| **Bit** | **Information** | **Notes** |
| <ANA> | Complete List Of NonTxBSSID Profiles | This field is reserved for a non-AP STA or when the AP has dot11MultiBSSIDActivated set to false.An AP with dot11MultiBSSIDActivated set to true shall set the value of this field to 1 to indicate that the Beacon frame or DMG Beacon frame carrying this element includes a complete list of nontransmitted BSSID profiles. Otherwise, it sets the field to 0.Also see 9.4.2.46 and 11.1.3.8 |