IEEE P802.11
Wireless LANs

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| CC36 Resolution for CIDs in Clause 35.3.4.3 – part 2 |
| Date: January 14, 2022 |
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 Abstract

This submission proposes resolutions for following 8 CIDs received for TGbe CC36:

4047, 5076, 5914, 5978, 6751, 6198, 7456, 6981

**Revisions:**

* Rev 0: Initial version of the document.
* Rev 1: Added resolutions for CID 6981

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

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

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

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| **CID** | **Commenter** | **Section** | **Pg.Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 4047 | Abhishek Patil | 35.3.4.3 | 253.53 | An AP MLD can use the Neighbor Report element and the procedures similar to the ones described in clause 11.21.7 to help perform load balancing between it affiliated APs. | Commenter will provide a contribution | **Revised**Agree with the commenter. The changes corresponding to the comment have already been proposed and approved in document 11-21/1710r5 as a resolution for CID 5322. No technical changes are required for the resolution of this comment. A reference to the subclause added in doc 11-21/1710r5 is added.**TGbe editor: Please implement the changes shown in document 11-21/2027r1 tagged as #4047.** |
| 5076 | Gaurav Patwardhan | 11.21 | 206.34 | 802.11be should describe the usage of BSS Transition Management Query signaling by a non-AP MLD to query suitable neighbor AP MLDs. | As in comment. | **Revised**Agree with the commenter. The changes corresponding to the comment have already been proposed and approved in document 11-21/1710r5 as a resolution for CID 5322. The changes in document 11-21/1710r5 expand the BSS Transition Management framework from an AP to an AP MLD. Thus, no technical changes are required for the resolution of this comment. A reference to the subclause added in doc 11-21/1710r5 is added.**TGbe editor: Please implement the changes shown in document 11-21/2027r1 tagged as #4047.** |
| 5914 | Li-Hsiang Sun | 35.3.4.3 | 253.23 | "by the AP corresponding to the transmitted BSSID in the same multiple BSSID set as at least one of the APs affiliated with the AP MLD"Can there be 2 APs affiliated with the AP MLD and be the same multi-BSSID set as the transmitted BSSID? | remove "at least" | **Rejected**The statement indicates that the discovery can occur on any link on which an AP affiliated with the AP MLD operates. As long as a STA affiliated with the non-AP MLD receives a frame carrying the ML element on one of the links, the AP MLD is discovered.  |
| 5978 | Liwen Chu | 35.3.4.3 | 253.21 | discovering one AP MLD is not always right in the case of transmitted BSSID | As in comment | **Rejected**The statements in the subclause apply for both cases where – (a) the discovered AP and AP MLD correspond to the transmitted BSSID, and (b) the discovered AP and AP MLD correspond to the nontransmitted BSSID. For example, in the statement ‘receives an ML probe response from an AP affiliated with the AP MLD or the AP corresponding to the transmitted BSSID in the same multiple BSSID set as at least one of the APs affiliated with the AP MLD’ the first part of the statement describes case (a) while the second part describes case (b) |
| 6751 | Romain GUIGNARD | 35.3.4.3 | 0.00 | Why a non-AP MLD shall be able to determine that several Aps are affiliated with the same AP MLD by using the the MLD MAC address instead of MLD ID which seems dedicated to this purpose. | insert alternative by using MLD ID | **Rejected**The MLD ID subfield is used only in the Reduced Neighbor Report element. It is a subfield within the MLD Parameters subfield. The Basic Multi-Link element does not include the MLD ID field and hence cannot be used to identify the MLD with which the reported AP is affiliated. |
| 6198 | Michael Montemurro | 35.3.4.3 | 253.18 | I'm not sure what behavior this clause is requiring. There is no real requirement to transmit or receive anything. | This clause should provide some requirements on some specific behavior of the non-AP MLD. At this point, phrases like "shall be able to discover" are too vague to derive any behavior. | **Revised**The text in the subclause was revised to provide clear rules on how a non-AP MLD or its affiliated STA can discover an AP MLD and its affiliated STAs.**TGbe editor: Please implement the changes shown in document 11-21/2027r1 tagged as #6198.** |
| 7456 | Thomas Derham | 35.3.4.3 | 0.00 | what does it mean to "be able to discover" as a normative requirement? we don't have this language in baseline | Delete or replace with a meaningful normative requirement | **Revised**The text in the subclause was revised to provide clear rules on how a non-AP MLD or its affiliated STA can discover an AP MLD and its affiliated STAs.**TGbe editor: Please implement the changes shown in document 11-21/2027r1 tagged as #6198.** |
| 6981 | Sanghyun Kim | 35.3.4.3 | 253.41 | The non-AP MLD shall not try to perform multi-link setup with the Soft AP MLD through the non-primary link of the Soft AP MLD. Because the Soft AP MLD can not transmit Probe Response frame on the non-primary link. | Clarify a restriction of the multi-link setup procedure regarding Soft AP MLD. | **Revised**Agree with the commenter in principle. The non-AP MLD rules for transmitting Association Request frames already exist in D1.4. The behavior for the transmission of Probe Request frames was added in the CR document 11-21/1210r9. **TGbe editor: No further changes are required for the resolution of this CID** |

***TGbe editor: Please note Baseline is 11be D1.4***

**35.3.4 Discovery of an AP MLD**

**35.3.4.3 Non-AP MLD behavior**

***TGbe editor: Please add the following paragraph as shown below***

A non-AP MLD shall discover an AP MLD and the APs affiliated with the AP MLD when: (#6198)

* a STA affiliated with the non-AP MLD (#6198) receives a Basic Multi-Link element carried in a Beacon frame or Probe Response frame, that is not an ML probe response, transmitted by an AP affiliated with the AP MLD or by the AP corresponding to the transmitted BSSID in the same multiple BSSID set as at least one of the APs affiliated with the AP MLD.
* a STA affiliated with the non-AP MLD (#6198) receives an ML probe response from an AP affiliated with the AP MLD or the AP corresponding to the transmitted BSSID in the same multiple BSSID set as at least one of the APs affiliated with the AP MLD and the ML probe response carries a Basic Multi-Link element with a complete profile of the reported AP.
* a STA affiliated with a non-AP MLD (#6198) receives a Beacon or Probe Response frame transmitted by an AP (reporting AP) and the frame carries a Reduced Neighbor Report element that includes the MLD Parameters subfield in the TBTT Information field corresponding to the reported AP. A non-AP MLD shall (#6198)infer the relationship between the reported AP and the reporting AP by decoding the MLD ID subfield of the MLD Parameters subfield in the Reduced Neighbor Report element and following the rules described in 35.3.4.1 (AP behavior).
* a STA affiliated with the non-AP MLD and the frame carries a Neighbor Report element (#6198)

A non-AP MLD may use the information it gathers from a Reduced Neighbor Report element and a Basic Multi-Link element to decide whether to perform multi-link setup with an AP MLD.

(#6198) A non-AP MLD may use the information it receives from a Neighbor Report element to make a decision on performing multi-link (re)setup (see 35.3.5 (Multi-link (re)setup)) or BSS transition (see 4.5.3.2 (Mobility types) and 35.3.25 (BSS transition management for MLDs) (#4047)). (#6198)