### IEEE P802.11 Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CR for Capability Information field Related CIDs (CC34) | | | | |
| Date: 2021-04-01 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Yiqing Li | Huawei |  |  | Liqiying3@huawei.com |
| Ming Gan |  |  |  |
| Yunbo Li |  |  |  |
| Yuchen Guo |  |  |  |
| Guogang Huang |  |  |  |
| Yuxin Lu |  |  |  |
| Stephen McCann |  |  |  |
| Abhishek Patil | Qualcomm |  |  |  |

Abstract

This submission proposes resolutions for the following CIDs:

1013, 1237, 1900, 2510, 2848, 3012

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Some changes based on suggestion and feedback from Stephen, Ming and Abhi.

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 D0.1 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe D1.0 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.***

***TGbe editor: Please note Baseline is REVmd D5.0, 11ax D8.0, and 11be D1.0***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 1013 | Abhishek Patil | 68.52 | 9.4.2.71 | Add a NOTE or a descriptive paragraph in 9.4.2.71 that bit B6 in Nontransmitted BSSID Capability field is set to 1 if there is a change to a value carried in the Change Sequence subfield of the MLD Parameters field in the Reduced Neighbor Report element for any AP in the same AP MLD to which the AP corresponding to the nonTxBSSID belongs to | As in comment. | Revised -  Agree with the comment. Add a NOTE to clarify the setting of the Critical Update Flag subfield in the Nontransmitted BSSID Capability field in Nontransmitted BSSID capability element. And add more descriptive words to align with the texts in subclause 35.3.8 BSS parameter critical update procedure referred to 11-21/0621r3.  TGbe editor to make the changes shown in 11-21/0633r0 under all headings that include CID 1013. |
| 1237 | Arik Klein | 60.59 | 9.4.1.4 | Use unified terminology of AP affiliated with AP MLD rather than AP of MLD, as in the sentence: "An \*AP of an AP MLD\* sets the Critical Update Flag subfield to 1 if... " | The revised sentence shall be "An AP affiliated with an AP MLD sets the Critical Update Flag subfield to 1 if ...." | Revised -  Agree with the comment and propose the resolution to account for the suggested change.  TGbe editor to make the changes shown in 11-21/0633r0 under all headings that include CID 1237. |
| 1900 | Jeongki Kim | 60.64 | 9.4.1.4 | In NOTE, the value will be the value of the Critical Update Flag subfield. Need to clarify | Replace it with the following text.  NOTE--An AP sets the value of the Critical Update Flag subfield to 1 in one or more Beacon frames by following the procedure defined in 35.3.8 (BSS parameter critical update procedure).  Or, need to clarify the related text | Revised –  Agree with the comment. The related texts “Set the Critical Update Flag subfield of the Capability Information field to 1 in the Beacon frame(s) until and including the next DTIM Beacon frame on the link on which the AP is operating if there is a change to a value carried in the BSS Parameters Change Count subfield of the MLD Parameters field in the Reduced Neighbor Report element for any AP in the same AP MLD as the AP or a value carried in the BSS Parameters Change Count subfield in the Common Info field of the Basic variant Multi-Link element” are added in subclause 35.3.8 BSS parameter critical update procedure referred to 11-21/0621r3. Here just add a guiding sentence referring to this subclause 35.3.8 for further explanation.  TGbe editor to make the changes shown in 11-21/0633r0 under all headings that include CID 1900. |
| 2510 | Pooya Monajemi | 74.60 | 9.4.2.295 | If a critical parameter from another AP is updated, the transmitting AP should be able to include that parameter in a beacon and prevent a probe storm by signaling that the update is included. | Add a bit that indicates that critical parameters updated from CSN-1 are included in the ML element. | Rejected –  The comment is not clear, what is CSN-1? Based on the contribution 20-1862/r0, the commenter proposes to include all the critial parameters updated from CSN-1 in the Beacon and Probe Response frame. However, if each client has different apriori knowledge about the operational parameters of the AP, then all the critical parameters updated from CSN-1 may not be useful for every STA, that is to say, some STAs still need to retrive the update by Beacon reception or other ways. Moreover, it is an overhead to include these parameters updated from CSN-1. |
| 2848 | stephane baron | 60.64 | 9.4.1.4 | The behaviour described in this part of the text shall not be a note. | Replace the note by "An AP of an AP MLD may set the Critical Update Flag subfield to 1 in one or more Beacon frames by following the procedure defined in 35.3.8 (BSS parameter critical update procedure)." | Revised –  Agree with the comment. The related texts “Set the Critical Update Flag subfield of the Capability Information field to 1 in the Beacon frame(s) until and including the next DTIM Beacon frame on the link on which the AP is operating if there is a change to a value carried in the BSS Parameters Change Count subfield of the MLD Parameters field in the Reduced Neighbor Report element for any AP in the same AP MLD as the AP or a value carried in the BSS Parameters Change Count subfield in the Common Info field of the Basic variant Multi-Link element” are added in subclause 35.3.8 BSS parameter critical update procedure referred to 11-21/0621r3. Here just add a guiding sentence referring to this subclause 35.3.8 for further explanation.  TGbe editor to make the changes shown in 11-21/0633r0 under all headings that include CID 2848. |
| 3012 | Xiaofei Wang | 60.59 | 9.4.1.4 | How long is an AP supposed to set the Critical Update Flag? It is not clear. | Please provide clarification | Revised-  Agree with the comment. Add the corresponding description to limit the time when an AP sets the value of the Critical Update Flag subfield. The related texts “Set the Critical Update Flag subfield of the Capability Information field to 1 in the Beacon frame(s) until and including the next DTIM Beacon frame on the link on which the AP is operating if there is a change to a value carried in the BSS Parameters Change Count subfield of the MLD Parameters field in the Reduced Neighbor Report element for any AP in the same AP MLD as the AP or a value carried in the BSS Parameters Change Count subfield in the Common Info field of the Basic variant Multi-Link element” are added in subclause 35.3.8 BSS parameter critical update procedure referred to 11-21/0621r3. Here just add a guiding sentence referring to this subclause 35.3.8 for further explanation.  TGbe editor to make the changes shown in 11-21/0633r0 under all headings that include CID 3012. |

**Discussion:** *None.*

**Propose:**

*TGbe editor: Change 9.4 Management and Extension frame body components as follows (track change on):*

9.4 Management and Extension frame body components

9.4.1 Fields that are not elements

9.4.1.4 Capability Information field

The Critical Update Flag subfield is reserved except when the Capability Information field is carried in a Beacon or a Probe Response frame transmitted by an AP affiliated with an AP MLD. (#1237)

An AP affiliated with an AP MLD sets the Critical Update Flag subfield to 1 if there is a change to a value carried in the Change Sequence subfield of the MLD Parameters field in the Reduced Neighbor Report element for any AP affiliated with the same AP MLD. Otherwise the AP sets the subfield to 0. (See 35.3.8 (BSS parameter critical update procedure)) (#1237, 1900, 2848, 3012)

9.4.2.71 Nontransmitted BSSID Capability element

…

*TGbe editor: Please add the following NOTE after the 5th paragraph in subclause 9.4.2.71 in REVmd D5.0:*

(M121)The Nontransmitted BSSID Capability field contains the contents of the Capability Information field (defined in 9.4.1.4 (Capability Information field)) in beacons for the BSS.

NOTE – The Critical Update Flag subfield of the Nontransmitted BSSID Capability field is set to 1 in the Beacon frame(s) until and including the next DTIM Beacon frame of the nontransmitted BSSID if there is a change to a value carried in the BSS Parameters Change Count subfield of the MLD Parameters field in the Reduced Neighbor Report element for any AP in the same AP MLD as the AP corresponding to the nontransmitted BSSID or a value carried in the BSS Parameters Change Count subfield in the Common Info field of the Basic variant Multi-Link element in the Nontransmitted BSSID profile corresponding to the nontransmitted BSSID. Otherwise the subfield is set to 0. (See 35.3.8 (BSS parameter critical update procedure)) (#1013)

The Nontransmitted BSSID Capability element is included in the Nontransmitted BSSID Profile subelement of the Multiple BSSID element defined in 9.4.2.45 (Multiple BSSID element). The use of the Multiple BSSID element is described in 11.10.14 (Multiple BSSID set) and Nontransmitted BSSID advertisement procedures are described in 11.1.3.8 (Multiple BSSID procedure).