IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 11be D3.0 CR for 35.3.19 | | | | |
| Date: 2023-04-28 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Kaiying Lu | Mediatek USA |  | 1-408-3872160 | kaiying.lu@mediatek.com |

Abstract

This submission proposes resolutions for the following CIDs:

15453, 16108, 16109, 16619, 17850, 16963, 18172, 17918, 18061, 15888, 18293, 18294, 16966, 16964, 16965, 18173, 18294

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Wording changes
* Rev 2: Modifications of CR for deferred CIDs 17850, 16963, 15888, 18293, 16966
* Rev 3: Modifications on texts for CID 15888, 18293, 16966
* Rev 4: Modifications on texts for CID 17850, 16963

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 D3.0 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe D3.0 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.***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 15453 | Julien Sevin | 35.3.19.2 | 574.39 | There is an inconsistency in the sentence "An AP affiliated with an NSTR mobile AP MLD and that is operating on the primary link of an NSTR link pair shall indicate that it is an NSTR mobile AP MLD by setting AP MLD Type Indication subfield to 1 in MLD Capabilities and Operations field of Common Info field in the Basic Multi-Link element." as a NSTR mobile AP MLD may operate with only one affiliated AP | Suppress the term "of an NSTR link pair " in the sentence | Revised  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 15453 |
| 16108 | Insun Jang | 35.3.19.2 | 574.50 | Need to remove "-" of Short-BSSID | As in the comment | Revised  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 16108 |
| 16109 | Insun Jang | 35.3.19.2 | 574.51 | Need to change "Field" to "field" | As in the comment | Revised  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 16109 |
| 16619 | Arik Klein | 35.3.19.2 | 574.41 | MLD Capabilities and Operations is a subfield (in the Common Info field of the Basic MLE) and not a field.  Please revise as suggested. | Please revise the sentence as follows: "An AP affiliated with an NSTR mobile AP MLD and that is operating on the primary link of an NSTR link pair shall indicate that it is an NSTR mobile AP MLD by setting AP MLD Type Indication subfield to 1 in MLD Capabilities and Operations \*subfield\* of Common Info field in the Basic Multi-Link element." | Accepted.  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 16619 |
| 17850 | Yunbo Li | 35.3.19.2 | 574.52 | Based on this sentence, it will exclude other cases to use TBTT Info Field Type equal to 1 and TBTT Info Field Length equal to 3. This is a big change on the original usage of TBTT Info Field Type and TBTT Info Field Length subfields | If the reported AP is operating on the nonprimary link, the corresponding TBTT Information Field Type and TBTT Information Field Length subfields shall be set to 1 and 3, respecitively. The commenter will bring the contribution | Revised  TGbe editor to make the changes shown in 11-23/0730r4 under all headings that include CID 17850. |
| 16963 | Mark RISON | 35.3.19.2 | 574.52 | "shall set to 1" should be "shall be set to 1" | As it says in the comment | Accepted.  TGbe editor to make the changes shown in 11-23/0730r4 under all headings that include CID 16963. |
| 18172 | Abhishek Patil | 35.3.19.2 | 574.52 | Typo - missing 'be' | Add 'be' between 'shall' and 'set' | Accepted.  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 16963. |
| 17918 | Kazuto Yano | 35.3.19.2 | 574.48 | A period is missing at the end of this NOTE. | As it says in the comment | Accepted.  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 17918. |
| 18061 | Albert Petrick | 35.3.19.2 | 574.48 | Missing period. | Add period after "link alone. " | Accepted.  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 17918. |
| 15888 | Chunyu Hu | 35.3.19.3 | 575.29 | The description in NOTE 2 seems to the baseline, why need to call out here? | Change to refer to the baseline or call out the difference explicitly. | Revised.  TGbe editor to make the changes shown in 11-23/0730r3 under all headings that include CID 15888. |
| 18293 | kaiying Lu | 35.3.19.3 | 575.29 | Since an NSTR mobile AP MLD will not transmit Beacon frames on the non-primary link, the note here should clarify that the non-AP MLD can determine that the AP operating on the nonprimary link that is in process of channel switching has resumed BSS operation on the new operating class/channel when the most recently received multi-link element stops including the Max Channel Switch Time element corresponding to the non-primary link. That is the difference from the channel switch baseline procedure for regular AP MLD case. | Change the note to: "The non-AP MLD can determine that the AP operating on the nonprimary link that is in process of channel switching resumed BSS operation on the new operating class/channel when the most recently received multi-link element stops including the Max Channel Switch Time element corresponding to the nonprimary link". | Revised.  TGbe editor to make the changes shown in 11-23/0730r3 under all headings that include CID 15888. |
| 18294 | kaiying Lu | 35.3.19.3 | 575.32 | It is obvious that "While AP operating on the nonprimary link is in the process of channel switching, the non-AP MLD does not transmit a frame to that AP." | Delete the sentence. | Accepted.  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 18294. |
| 16966 | Mark RISON | 35.3.19.3 | 575.28 | "in process for switching its  operating channel/class" should be "in the process of switching its  operating channel/class" | As it says in the comment | Revised.  TGbe editor to make the changes shown in 11-23/0730r3 under all headings that include CID 15888. |
| 16964 | Mark RISON | 35.3.19.3 | 575.03 | Is it "quieting" or "quietening"? | If "quieting" is valid American then I suppose that's OK | Rejected.  Quieting is used in many instances. No need to change. |
| 16965 | Mark RISON | 35.3.19.3 | 575.22 | "send the Beacon frame" wrong article | Change to "send a Beacon frame" | Accepted.  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 16965. |
| 18173 | Abhishek Patil | 35.3.19.3 | 575.22 | Move the NOTE after all the bullets | As in comment | Accepted.  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 18173. |
| 18294 | kaiying Lu | 35.3.19.3 | 575.32 | It is obvious that "While AP operating on the nonprimary link is in the process of channel switching, the non-AP MLD does not transmit a frame to that AP." | Delete the sentence. | Accepted.  TGbe editor to make the changes shown in 11-23/0730r1 under all headings that include CID 18294. |

*TGbe editor: Change Clause 35.3.19.2 as follows (track change on):*

**35.3.19.2 Discovery of an NSTR mobile AP MLD**

The discovery procedure for an NSTR mobile AP MLD is the same as the procedure described in 35.3.4 (Discovery of an AP MLD) with the following exceptions:

—An AP affiliated with an NSTR mobile AP MLD and that is operating on the primary link (#15453) shall indicate that it is an NSTR mobile AP MLD by setting AP MLD Type Indication subfield to 1 in MLD Capabilities and Operations subfield (#16619) of Common Info field in the Basic Multi-Link element.

—An AP affiliated with an NSTR mobile AP MLD and that is operating on the primary link (#15453) shall include a Reduced Neighbor Report element with the MLD Parameters subfield present in a TBTT Information field corresponding to a reported AP affiliated with the NSTR mobile AP MLD and that is operating on the nonprimary link of the NSTR link pair in a Beacon and Probe Response frames that it transmits. The Neighbor AP TBTT Offset subfield, the BSSID subfield, the ShortSSID subfield(#16108), the BSS Parameters subfield and the 20 MHz PSD subfield shall not be present in the TBTT Information field (#16109) for that reported AP. The TBTT Information Field Type subfield and the TBTT Information Length subfield shall be set to 1 and 3 respectively to identify, that reported AP operating on the nonprimary link(#16963, 17850).

—(#16963, 17850)A non-AP MLD identifies an AP as an AP affiliated with an NSTR Mobile AP MLD and operating on the primary link when it receives a Basic Multi-Link element in a Beacon frame or Probe Response frame from that AP with the AP MLD Type Indication subfield set to 1 in the MLD Capabilities and Operations subfield of Common Info field of the Basic Multi-Link element.

— (#16963, 17850)A non-AP MLD identifies a reported AP in a Reduced Neighbor Report element as an AP affiliated with an NSTR Mobile AP MLD and operating on the nonprimary link if the TBTT Information Field Type subfield and the TBTT Information Length subfield are equal to 1 and 3 respectively for the Neighbor AP Information field corresponding to the reported AP.—A non-AP STA affiliated with a non-AP MLD shall not transmit a Probe Request frame to the AP affiliated with the NSTR mobile AP MLD and that is operating on the nonprimary link of the NSTR link pair. To request a complete profile of the AP operating on the nonprimary link, a non-AP STA affiliated with a non-AP MLD shall send a multi-link probe request to an AP affiliated with the NSTR mobile AP MLD and that is operating on the primary link (see 35.3.4.2 (Use of multi-link probe request and response)).

—The NSTR mobile AP MLD shall not respond to any received Probe Request frames on the nonprimary link.

*TGbe editor: Change Clause 35.3.19.3 as follows (track change on):*

**35.3.19.3 NSTR mobile AP MLD multi-link procedures for channel switching, extended channel switching, and channel quieting**

Multi-link procedures for channel switching, extended channel switching, and channel quieting for an AP affiliated with an NSTR mobile AP MLD on the nonprimary link follow the same rules defined in 35.3.11 (Multi-link procedures for channel switching, extended channel switching, and channel quieting) with the following exceptions:

—An AP affiliated with an NSTR mobile AP MLD on the primary link may schedule channel switching and quiet intervals for the AP affiliated with the same NSTR mobile AP MLD on the nonprimary link by including the corresponding elements in the STA Profile field of the Per-STA Profile subelement corresponding to the AP on the nonprimary link carried in Beacon frames and Probe Response frames that it transmits on the primary link.

—The timing fields in the Channel Switch Announcement element, the Extended Channel Switch Announcement element, the Quiet element, and the Quiet Channel element shall be applied in reference to the most recent TBTT and BI indicated in the corresponding element(s) of the AP operating on the primary link.

—The Switch Time field in the Max Channel Switch Time element included in the Per-STA Profile subelement corresponding to the AP operating on the nonprimary link indicates an adjusted estimated time until the corresponding AP resumes BSS operation on the new channel/class.

(#15888) After the estimated target switch time, a non-AP MLD associated with an NSTR mobile AP MLD shall be able to determine that the AP (affected/reported AP) operating on the nonprimary link is in the process for switching its operating channel/class to the new channel/class when the most recently received per-STA profile that is corresponding to the nonprimary link includes the Max Channel Switch Time element and does not include the (Extended) Channel Switch Announcement element. The non-AP MLD shall be able to determine that the affected/reported AP operating on the nonprimary link has resumed the BSS operation when the most recently received per-STA profile corresponding to that affected/reported AP stops including the Max Channel Switch Time element. (#18294)

(#18173)NOTE 1—The TBTT and the BI are not defined for a BSS of an AP operating on the nonprimary link. This is because the AP does not send a(#16965) Beacon frame for its BSS.