IEEE P802.11
Wireless LANs

|  |
| --- |
| LB 275 Resolution for CIDs assigned to Abhi – Part 11 |
| Date: November 2, 2023 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Abhishek Patil | Qualcomm Technologies Inc. |  |  |  |
| George Cherian |  |  |  |

 Abstract

This submission proposes resolutions for following CIDs received for TGbe LB275:

**Revisions:**

* Rev 0: Initial version of the document.

***TGbe editor: Baseline for this document is 11be D4.1***

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.

***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** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 19181 | Matthew Fischer | 9.4.2.312.2.3 | 253.53 | The field "Recommended Max Simultaneous Links" is missing clarity on its use. Is it dynamic? When does an AP set this value to a value that is less than the number of links indicated in the Multi link element? | Define simultaneous in this context. Define whether the parameter can be changed by the AP during the BSS lifetime. Define what happens if the value does change and existing non-AP STAs that had not previously violated the recommendation are now in violation. | **Rejected**An AP MLD does not update the value specified in the Recommended Max Simultaneous Link field even when an AP MLD adds or removes links or when there are changes to the number of clients operating on different links. Therefore, the concerns raised by the comment (i.e., non-AP MLD violating since there was an update to the value) would not occur.  |
| 19185 | Matthew Fischer | 9.4.2.312.2.3 | 253.53 | The field "Recommended Max Simultaneous Links" is missing clarity on its use. Is it dynamic? When does an AP set this value to a value that is less than the number of links indicated in the Multi link element? Too many unaswered questions for this vague addition. | Delete this field and the last paragraph of subclause 35.3.7.1 | **Rejected**An AP MLD does not update the value specified in the Recommended Max Simultaneous Link field even when an AP MLD adds or removes links or when there are changes to the number of clients operating on different links. Therefore, the concerns raised by the comment (i.e., non-AP MLD violating since there was an update to the value) would not occur.  |
| 19182 | Matthew Fischer | 9.4.2.312.2.3 | 254.17 | What is "simultaneous"? Could the frame exchanges on other links be separated by 10 usec? 100 usec? 1 msec? | Define simultaneous in this context. | **Rejected**The term simultaneous indicates that a non-AP MLD is expected to not exchange frames on more than the specified links concurrently at any given time. |
| 19183 | Matthew Fischer | 35.3.7.1 | 519.54 | There is no definition for "simultaneous" here. I expect that an AP might do something to a non-AP STA that it determines has not been obeying the "simultaneity" recommendation. How does a non-AP STA know that such "implied simultaneity" has been violated? | Define simultaneous in this context. Define the actions of the AP should the recommendation be violated. Define the mechanism by which a violating non-AP STA knows that it is in violation. | **Rejected**The term simultaneous indicates that a non-AP MLD is expected to not exchange frames on more than the specified links concurrently at any given time. The standard provides several tools (such as link disablement via TTLM negotiation, link removal recommendation via ML reconfiguration or disassociation imminent via BTM request) to an AP MLD to enact if a non-AP MLD is frequently violating the specified limit. An AP MLD initiating any of the above actions is an indication to the non-AP MLD that its violations are being noticed by the AP MLD. |
| 19184 | Matthew Fischer | 35.3.7.1 | 519.54 | The cited language of this subclause does not reflect any of the discussion that the author of the language suggested was the rationale for the inclusion of the language. Nothing in this language provides any guidance to a non-AP STA attempting to associate with the AP as to what the non-AP STA should do at association time. | Define recommended actions on the part of the non-AP STA based on the observed value of the parameter transmitted by the AP. | **Rejected**An AP MLD does not impose a limit on the number of links a non-AP MLD can request during ML setup. The Recommended Max Simultaneous Link field carried in the AP’s Beacon frame provides guidance to a non-AP MLD on how many links it can use simultaneously for frame exchange with the AP after it has associated with the AP MLD.  |
| 19683 | Arik Klein | 35.3.7.1 | 519.54 | Need to add that context of this sentence is valid when the Basic Multi-Link element is carried in the Beacon or broadcast Probe Response frames, since these are the only cases where the Recommended Max Simultaneous Links subfield is valid (see P254L17 ).Please revise the sentence as suggested, | The sentence should be revised as follows: "When an AP MLD advertises a value L (where L is greater than 1) in the Recommended Max Simultaneous Links subfield of the Basic Multi-Link element \*that is carried in Beacon or broadcast Probe Response frames\*, an associated non-AP MLD should not exchange frames simultaneously on more than L links" | **Accepted** |
| 19770 | Abhishek Patil | 35.3.7.1 | 519.55 | Since this is a recommendation, it is not clear to an AP MLD whether a certain non-AP MLD will conform to the AP's request. | The standard must provide a mechanism for an AP to determine which clients intend to follow its request. | **Rejected**The Recommended Max Simultaneous Link field carried in the AP’s Beacon frame provides guidance to each associated non-AP MLD as to many links it can use simultaneously for frame exchange with the AP. An AP MLD has several tools (such as link disablement via TTLM negotiation, link removal recommendation via ML reconfiguration or disassociation imminent via BTM request) to an AP MLD to enact if a non-AP MLD is frequently violating the specified limit. An AP MLD initiating any of the above actions is an indication to the non-AP MLD that its violations are being noticed by the AP MLD. |