IEEE P802.11
Wireless LANs

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| Last CIDs and fixes |
| Date: 2018-09-17 |
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Abstract

This document provides CR for CIDs 20175, 21443, 21552, 21586, 20804, 21506 and proposed bug fixes

1. **Introduction**

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. The introduction and the explanation of the proposed changes are 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** | **Clause Number(C)** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 20175 | Chunyu Hu | 26.2.7 | 303.37 | The MU EDCA procedure is lack of an explicit or implicit signaling mechanism that allows AP or non-AP STAs to exit current MU EDCA backoff period when AP stops triggering. The lack of the mechanism can cause non-AP STAs' UL traffic being delayed significantly. | Define an explicit or implicit signaling mechanism to solve this problem. |  |
| 21443 | Thomas Derham | 26.2.7 | 303.43 | The AP may wish to provide different MU EDCA parameters to each associated STA.Per current draft the only way to do this is to not broadcast MU EDCA parameters element in beacons (or broadcast probe responses), and instead send unicast in (re)assoc response.However the AP may wish to update these values post-association, e.g. when medium conditions change.A means to unicast updated parameters to a particular STA in a robust action frame should be provided.This would avoid the workaround wrt QoS Capability element noted at top of page 304 | Support updating MU EDCA parameters (and, indeed, regular EDCA parameters) in a robust action frame to a specific non-AP STA | Reject - There may be fairness issues between STAs with this proposal. No sufficient support for this proposal |
| 21552 | Youhan Kim | 26.11.6 | 408.63 | SRP has a mode in which the AP can disable the use of SRP in the BSS. However, there is no such equivalent mode for OBSS\_PD based SR. | Change "A non-AP STA ... may set ... to SRP\_AND\_NON\_SRG\_OBSSPD\_PROHIBITED if the HESIGA\_Spatial\_reuse\_value15\_allowed\_subfiled ... is equal to 1" to "A non-AP STA ... shall set ... to SRP\_AND\_NON\_SRG\_OBSSPD\_PROHIBITED if the HESIGA\_Spatial\_reuse\_value15\_allowed\_subfiled ... is equal to 1" | Reject - The bit identified by the commenter is a way to disallow OBSS\_PD. The existing text represents the consensus of the group, which is to have the function for the STA to be able to disallow OBSS\_PD, while the AP regulates the use of that function. OBSS\_PD and SRP are different mechanism and don't need to have the same disallow mechanism. |
| 21586 | Zhou Lan | 26.2.7 | 303.37 | The MU EDCA procedure is lack of an explicit or implicit signaling mechanism that allows AP or non-AP STAs to exit current MU EDCA backoff period when AP stops triggering. The lack of the mechanism can cause non-AP STAs' UL traffic being delayed significantly. | Define an explicit or implicit signaling mechanism to solve this problem. |  |
| 20804 | Mark RISON | 26.17.2.4 | 434.15 | "NOTE 2---It is recommended that the AP responds with a GAS comeback delay of zero." -- this is a hidden normative requirement | Replace with "The AP should respond with a GAS comeback delay of zero." | Reject – The intention of the note was to provide a recommendation to the internal implementation to set this variable to 0 but it was not intended to be a normative behavior from the standard’s perspective. |
| 21506 | Yonggang Fang | 9.4.2.170.2 | 154.58 | It might be a case that co-located ESS HE AP operating in 2.4 GHz and 6 GHz bands cannot be detected by an HE STA due their beacons' coverage difference in those bands when the AP transmits a non-HT beacon in 2.4 GHz and an HE beacon in 6 GHz. Therefore the HE STA may not be able to detect HE AP in 6 GHz band when using the "Member of Co-located ESS". We need to address this issue. |   | Reject - This field is providing an additional information for the STA, but is not providing all the information (the Tx Power difference between the 2.4/5GHz AP and the 6 GHz AP is not known). The STA is aware that the information is not complete. There is no normative behavior that is described for the STA when receiving this field. As such, there is no need to address this issue. |

**Discussion:**

1

Issue with Filtered Neighbor AP field definition from baseline when the RNR is included in a BCST probe response frame. In that case, the receiver may not be able to make the relation with the probe request that elicited the transmission of the probe response frame and the probe response may also be sent in an unsolicited manner.

We therefore propose to modify the use of this field when included in a group addressed probe response frame, which would now be similar as when included in beacons.

2

Issue with Co-located AP subfield. If an AP reports multiple APs operating on the same channels and if some are co-located and some are not co-located, it would include all them in the same Neighbor AP Info field today and the Co-located AP subfield would be set to 0. The STA would then loose the information of which AP is co-located and which AP is not co-located.

We therefore propose to modify the definition of this field and mandate that in that situation, the AP shall include 2 Neighbor AP Info fields, one for the co-located APs and one for the non-colocated APs.

1. **Proposed changes**
* Reduced Neighbor Report element
* Neighbor AP Information field

***TGax Editor: Modify the 4th paragraph in this subclause as shown below (Bug fix):***

The Filtered Neighbor AP subfield is 1 bit in length. (11ai)When included in an individually addressed Probe Response frame, it is set to 1 if the SSID corresponding to every AP(#341) in this Neighbor AP Information field matches the SSID in the (11ai)corresponding Probe Request frame. (11ai)When included in a Beacon, a broadcast Probe Response frame or FILS Discovery frame transmitted by a non-TVHT AP, it is set to 1 if the SSID corresponding to every AP(#341) in this Neighbor AP Information field matches the SSID of the transmitting AP’s BSS. It is set to 0 otherwise.(11ai)(#1533)

***TGax Editor: End of changes***

Insert the following after the 4th paragraph:

***TGax Editor: Modify the paragraph inserted in D4.3 after the 4th paragraph in this subclause as shown below (Bug fix):***

The Co-Located AP subfield is set to 1 if every AP in this Neighbor AP Information field is in the co-located AP set of the transmitting AP. It is set to 0 if none of the APs in this Neighbor AP Information field is in the co-located AP set of the transmitting AP.

***TGax Editor: End of changes***

* Reduced neighbor report

***TGax Editor: Add the following paragraph after the first paragraph in this subclause (Bug fix):***

If a reporting AP sends a Reduced Neighbor Report element advertising APs with the same Operating Class and Channel Number and if some of those APs are in the same co-located AP set as the reporting AP and some are not in the same co-located AP set as the reporting AP, then the reporting AP shall include, for this Operating Class and Channel Number, two Neighbor AP Information fields with the Co-Located AP subfield set to 1 and 0 respectively.

***TGax Editor: End of changes***