IEEE P802.11
Wireless LANs

|  |
| --- |
| Last CIDs and fixes |
| Date: 2018-09-17 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Laurent Cariou |  |  |  | laurent.cariou@intel.com |

Abstract

This document provides 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.***

**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: Remove the following figure and sentences in 802.11ax D4.3, as shown below:***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |

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

***TGax Editor: Modify the following figure 9-629a as shown below:***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | B0 | B1 | B2 | B3 | B4 | B5 | B6 |           B7 |
|  | OCT Recommended | Same SSID | Multiple BSSID | Transmitted BSSID | Member of ESS with 2.4/5GHz Co-located AP(#20024) | 20 TU Probe Response Active | Co-located AP | Reserved |
| Bits:  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|  | * BSS Parameters subfield
 |

***TGax Editor: add the following paragraph after the paragraph starting with “The 20 TU Probe Response Active subfield is set to 1” in 802.11ax draft 4.3:***

The Co-Located AP subfield is set to 1 if the reported AP is in the co-located AP set of the transmitting AP. It is set to 0 otherwise.

* Reduced neighbor report

***TGax Editor: modify the following paragraph in this subclause (Bug fix):***

A reporting AP should set the OCT Recommended subfield to 1 in the BSS Parameters subfield of a TBTT Information field in a Reduced Neighbor Report element if both the reporting AP and the reported AP have the dot11OCTOptionImplemented equal to true (#21533) and the Co-Located AP subfield is 1 in the same BSS Parameters subfield. A reporting AP may set the OCT Recommended subfield to 1 in the BSS Parameters subfield of a TBTT Information field in a Reduced Neighbor Report element if both the reporting AP and the reported AP have the same SSID and have the dot11OCTOptionImplemented equal to true (#21533) and the Co-Located AP subfield is 0 in the same BSS Parameters subfield. If the OCT Recommended subfield is set to 1 and the Co-Located AP subfield is set to 1 (#21533) in the Neighbor AP Information field describ­ing a reported HE AP in the Reduced Neighbor Report element, then a non-AP STA that has the dot11OC­TOptionImplemented equal to true (#21533) should use the OCT procedure described in 11.32.5 (On-channel Tunneling (OCT) operation) to perform active scanning, authentication and/or association with the reported AP through over-the-air transmissions with the AP that sent the Reduced Neighbor Report element. If the OCT Recommended subfield is set to 1 and the Co-Located AP subfield is set to 0 in the Neighbor AP Information field describing a reported HE AP in the Reduced Neighbor Report element, then a non-AP STA that has the dot11OCTOptionImplemented equal to true (#21533) may use the OCT procedure described in 11.32.5 (On-channel Tunneling (OCT) operation) to perform active scanning, authentication and/or association with the reported AP through over-the-air transmissions with the AP that sent the Reduced Neighbor Report element.(#20082, #21355, #21533)

* Out of band discovery of a 6 GHz BSS

***TGax Editor: modify the following paragraph in this subclause (Bug fix):***

An AP that operates in the 2.4 GHz or 5 GHz bands and that is co-located with one or more APs that operate in the 6 GHz band shall include in Beacon and Probe Response frames that it transmits a Reduced Neighbor Report element with the Co-Located AP subfield in the BSS Parameters subfield in the TBTT Information field set to 1 to provide at least the operating channels and operating classes of the co-located APs in the 6 GHz band.

NOTE—The Reduced Neighbor Report element might contain information on APs that are operating in the 6 GHz band that are not co-located with the transmitting AP. In this case the Co-Located AP subfield is set to 0.