IEEE P802.11
Wireless LANs

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| Proposed Resolution of CID 1533 on RNR  |
| Date: 9 May 2018 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Roger MARKS | EthAirNet Associates | 4040 Montview Blvd, Denver, CO 80207 USA | +1-802-capable | roger@ethair.net |
| Mark RISON | Samsung Cambridge Solution Centre | SJH, CB4 0DS, U.K. | +44 1223 434600 | at samsung (a global commercial entity) I'm the letter emme then dot rison |
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Abstract

This document contains a proposed resolution to CID 1533 in LB# 232 (on P802.11REVmd/D1.0).

Comment

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| **CID** | **Commenter** | **Clause Number** | **Page** | **Line** | **Comment** | **Proposed Change** | **Comment Group** |
| 1533 | Mark RISON | 9.4.2.169.2 | 1266 | 50 | The changes made to the Neighbor AP Information field, specifically possible inclusion of optional octets in the TBTT Information field, will cause backward-compatibility problems with STAs conformant with 802.11-2016 | Revert the referenced subclause to its 802.11-2016 contents | Neighbor report |

Summary

The proposal raises valid concerns, However, the proposed change is too severe and would delete a major set of changes introduced in 802.11ai. The proposed resolution provides a more detailed solution to address incompatibilities and ambiguities while maintaining compatibility with 802.11ai.

The 802.11ai content has interfered with backward compatibility with TVHT operation, because the RNR was originally specified in 802.11af. Therefore, the proposal restricts the 802.11ai change to protect the legacy TVHT.

The proposed resolution corrects several diverse defects. For example, a paragraph on TBTT Information Count seems to have been accidentally deleted in the generation of Draft D1.0. Also, it proposes to move subclause 11.42.8 (“Reduced neighbor report”) to not be a subset of 11.42 (“Operation under the control of a GDB”) because the RNR is not intended to be limited to geolocation database operation, though it originated in 802.11af.

Proposed Resolution

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| **Resolution** | **Owning Ad-hoc** |
| REVISED, with changes shown in 802.11-18/0949r0. | MAC |

Proposed Change

In 9.4.2.169.2, pp. 1267, change lines 14-33 as follows:

The TBTT Information Field Type subfield is 2 bits in length and identifies, together with the TBTT Information Length subfield, the format of the TBTT Information field. It is set to 0. Values 1, 2, and 3 are reserved.

The Filtered Neighbor AP subfield is 1 bit in length. (11ai)When included in a Probe Response frame, it is set to 1 if the SSID of 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 or FILS Discovery frame transmitted by a non-TVHT AP, it is set to 1 if the SSID of every AP(#341) in this Neighbor AP Information field matches the SSID in the frame. It is set to 0 otherwise.(11ai)

The TBTT Information Count subfield is 4 bits in length and contains the number of TBTT Information fields included in the TBTT Information Set field of the Neighbor AP Information field, minus one. For example, a value of 0 indicates that one TBTT Information field is included.

The TBTT Information Length subfield is 1 octet in length and indicates the length of each TBTT Information field included in the TBTT Information Set field of(#342) the Neighbor AP Information field. When the TBTT Information Field Type subfield is set to 0, the TBTT Information Length subfield:

* contains the length in octets of each TBTT Information field that is included in the TBTT Information Set field of(#342) the Neighbor AP Information field
* is set to 1, 5, 7, or 11; other values are reserved.(11ai) (11ai)
* indicates the TBTT Information field contents as shown in Table 9-273 (TBTT Information field content(11ai)).

A TVHT AP sets the TBTT Information Length subfield to 1.

In 9.4.2.169.2, pp. 1267, change the caption on line 36 as follows:

**Table 9-273—TBTT Information field (11ai) contents**

Renumber 11.42.8 as 11.47.1, or another number at the same level, and move it to the appropriate location.

In 11.42.8, pp. 2295, change lines 51-54 as follows:

The Filtered Neighbor AP subfield in the Neighbor AP Information field shall be set to 1 if the AP determines that the SSID of every AP in the Neighbor AP Information field matches the SSID in the corresponding Probe Request frame, Beacon frame, or FILS Discovery frame; otherwise it shall be set to 0.

In 11.42.8, pp. 2295, change the sentence at lines 61-64 as follows:

A STA that receives a Neighbor AP Information field with an unrecognized TBTT Information Field Type subfield shall ignore the remainder of the Reduced Neighbor Report element.

A STA that receives a Neighbor AP Information field with a recognized TBTT Information Field Type subfield but an unrecognized TBTT Information Length subfield shall ignore that Neighbor AP Information field and continue to process remaining Neighbor AP Information fields.