IEEE P802.11
Wireless LANs

|  |
| --- |
| Spec Text for HE Operation element and AID Assign Rule  |
| Date: 2016-09-12 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Jianhan Liu | Mediatek | 2840 Junction Ave, San Jose, CA95134 |  | Jianhan.liu@mediatek.com |
| Tianyu Wu |  |  |
| Liwen Chu | Marvell |  |  |  |
| Daewon Lee | Newracom |  |  |  |
| Alfred Asterjadhi | Qualcomm Inc. |  |  |  |
| Geonjung Ko | WILUS |  |  |  |
| Jeongki Kim | LG |  |  |  |

Abstract

This submission contains spec text to be incorporated in P802.11ax D0.4 related to the following motion:

The AP may send a TBD IE that includes a field 'N‘. If the value indicated by the field N is greater than 0, then the AP shall allocate AIDs according to the formula



The TBD IE contains the number of partial BSS color bits used and the partial BSS color bits

[MAC Motion 83, March 2016, see 16/364r3]

Revision History:

* Rev 0: Initial version of the document
* Rev 1: HE Operation parameter format has been updated with Default PE duration, therefore the postion of partial BSS color bits need to be modified. Also Fix the value of partial BSS color bits *N* to 4. Previously the value of *N* can be 1,2,3,or 4.

***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 or insert 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.***

**TGax Editor: *Instruction: change the paragraph in*** 9.4.2.214***.***

#### **9.4.2.214 HE Operation element**

*Change the Figure 9-ax6 in* ***D.0.4*** *as follows:*



Figure 9-ax6—HE Operation Parameters (#1350) field format

***Add the following text from line 30 in page 59 of D.0.4):***

The Partial BSS Color Indication field is to indicate if the BSS applies AID assignment rule using the partial BSS color bits. If the Partial BSS Color Indication field is set to 1, then the *4* least significant bits of BSS color are used in AID assignment. If the Partial BSS Color Indication field is set to 0, no Partial BSS Color bits are used in AID assignment.

**TGax Editor: *Instruction: add the following to section 11.x.***

#### 11.x HE BSS Operation

#### 11.x.y AID Assign Rule

~~An AP may set the Partial BSS Color Length field to a nonzero value in HE Operation elements it transmits.~~ If the value of Partial BSS Color indication field is set to 1, then the HE AP shall allocate AIDs according to the formula for AID (5: 8)

$$AID\left(5:8\right)=bin\left[\left(BCB\left(0:3\right)-\left(BSSID(44:47)⊕BSSID(40:43)\right)\right)mod 2^{4}, 4\right]$$

where $BCB(0:3)$ stands for the least significant *4* BSS color bits and $bin[x, 4]$ is the operator that casts decimal value *x* into *4* bits binary vector.

**TGax Editor: *Instruction: change the subclause 25.2.1 in D0.4 as follows***:

**25.2.1 Intra-BSS and inter-BSS frame detection**

…

The value of RXVECTOR parameter PARTIAL\_AID [~~8-N+1~~5:8] in the received VHT PPDU with the RXVECTOR parameter GROUP\_ID equal to 63 is the same as the Partial BSS Color announced by the AP to which the STA is associated when ~~the value (N) of~~ the Partial BSS Color Indication ~~Length~~ field in the most recently received HE Operation element is ~~not equal~~ set to 1~~0~~.(#705)(#2436)

…

The value of RXVECTOR parameter PARTIAL\_AID [~~8-N+1~~5:8] in the received VHT PPDU with the RXVECTOR parameter GROUP\_ID equal to 63 is different from the Partial BSS Color announced by the AP to which the STA is associated when ~~the value (N) of~~ the Partial BSS Color Indication ~~Length~~ field in the most recently received HE Operation element is ~~not equal~~ set to 1~~0~~. (#705)(#2436)

…