IEEE P802.11
Wireless LANs

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| LB238 CR AID assignment  |
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Abstract

This submission proposes resolutions of comments received from TGax LB238.

(The proposed change is based on TGax Draft 4.2.)

* CIDs: 20469, 20466, 20468 (3 CIDs)

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. This introduction is 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.***

| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- |
| 20469 | 436.25 | 26.17.4 | The AID assignment mechanism doesn't work, because if the AP is forced to change BSS colour it might not be able to keep the same 4 lsbs | Delete Subclause 26.17.4, the Partial BSS Color bit from Figure 9-772j (replace with "Reserved"), the para in 9.4.2.243 describing the Partial BSS Color subfield, the last para of 26.11.4 and the dot11PartialBSSColorImplemented MIB variable in C.3 | Rejected- In 26.11.4 (BSS\_COLOR), “If the value of TXVECTOR parameter PARTIAL\_AID [5:8] for VHT PPDUs transmitted by an HE AP with the TXVECTOR parameter GROUP\_ID equal to 63 is not consistent with the partial BSS color (i.e., *BCB*(0:3) described in 26.17.4 (AID assignment)) announced by the HE AP, then the HE AP shall set the Partial BSS Color field in the HE Operation element to 0.”If the AP changes the BSS color and the PARTIAL\_AID [5:8] is not consistent with the partial BSS color, the AP shall set the Partial BSS Color field to 0. In such case, the Partial BSS Color is deactivated.  |
| 20466 | 436.33 | 26.17.4 | Equation (26-8) can result in a negative first operand to the mod operator, which is not clear | Add an xref to Subclause 1.4, where the behaviour for a negative first operand is defined | Rejected-In 1.5 (Terminology for mathematical, logical, and bit operations), “x mod y is the remainder when x is divided by y; this operator is not used in this standard if y is negative; the result is positive even if x is negative. For example, 5 mod 3 is 2 and –5 mod 3 is 1.”The description when x is negative is already clear.  |
| 20468 | 436.36 | 26.17.4 | "where BCB(0:3) are the 4 LSBs of the BSS color" is not helpful, because it does not indicate in which way the bits are mapped (e.g. is b0 of the BSS color mapped to b3 in the number that forms part of the equation)? Similarly BSSID(44:47) is not well-defined, nor is the bin[x, 4] cast operator | Describe the mapping from bits of the BSS color and the BSSID to numbers explicitly, and the mapping from numbers to bits of the AID explicitly | Revised- In 9.2.2 Conventions, “MAC addresses are assigned as ordered sequences of bits. The Individual/Group bit is always transferredfirst and is bit 0 of MAC address. Bit 47 of the MAC address is always transferred last. This is illustrated inFigure 9-1 (Representation of a 48-bit MAC address).MAC\_ADDR[b:c] represent bits b to c inclusive of MAC address MAC\_ADDR.”BSSID(b:c) is not a correct convention. Change the BSSID(b:c) to BSSID[b:c]. In 1.5 (Terminology for mathematical, logical, and bit operations), “*bin*[*x*, *k*] is the operator that casts decimal value x into k bits binary vector, where *x* is less than 2k”The baseline spec already have a definition of *bin* operator. Because it is a redundant definition, remove a definition of *bin* operator in 26.17.4. As commented, clarify the definition of BCB(0:3) and AID(5:8).TGax editor makes changes as specified in 11-19/1139r1 for CID 20468. |
| ***TGax Editor: Change the subclause 26.17.4 as follows (#20468):*** **26.17.4 AID assignment** An HE AP that transmits an HE Operation element with the Partial BSS Color subfield in the BSS Color Information field set to 1(#20943) shall allocate AIDs that meet the constraint in Equation (26-8)(#20467).AID(5:8) = *bin*[(*BCB*(0:3)  (*BSSID~~(~~[*44:47~~)~~*]* *BSSID*~~(~~*[*40:43~~)~~*]*)) *mod* 24, 4] (26-8)where *BCB*(0:3) ~~are the 4 LSBs of the BSS color and~~ *~~bin~~*~~[~~*~~x~~*~~, 4] is the operator that casts decimal value~~ *~~x~~* ~~into 4 bits binary vector~~ represents bits 0 to 3 inclusive of the BSS color in the transmitted HE Operation element with bit 0 being the first transmitted and AID(5:8) represents bits 5 to 8 inclusive of the allocated AID with bit 5 being the first transmitted. |