IEEE P802.11
Wireless LANs

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| Comment Collection 09 MAC CIDs (Comment Resolutions for CC09) |
| Date: 2013-07-13 |
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|  |  |  |  |  |

Abstract

This document provides resolutions for CIDs: 123, 366, 966, 967

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| 123 | 9.19.4a.3 | 131 | 43 | J | How is RAW access under a mixed BSS case? How do different types of STAs access the RAW? | Please clarify. | Rejected – The comment is invalid. The comment fails to identify a specific issue to be addressed. It fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.In reply to the commenter, different types of STAs can be allocated to different RAWs so that a RAW is accessed by a same type of STAs. |
| 366 | 9.19.4a.3 | 130 | 32 | V | Division is unacceptable at this level of MAC operation. | Add a field NRAW to the IE | Revised – Refer to changes in doc.: IEEE 802.11-13/0784r0 under CID 366 heading. |

**Discussion on CID 366:**

The RAW Slot Definition subfield contains the Slot Duration, the Slot Assignment, and the Cross Slot Boundary subfields. The Slot Assignment subfield contains a Noffset value, which can be obtained from the FCS field of the beacon frame. Therefore, the current definition of the Slot Assignment subfield is redundant. Instead, the Slot Assignment subfield can be repurposed to contain the number of slots in the RAW to address the comment.

**Proposed changes for CID 366:**

**8.4.2.170b RPS element**

***Modify Figure 8-401cq – RAW Slot Definition subfield in subclause 8.4.2.170b as follows:***

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  | Slot Duration |  Number of Slots | Cross Slot Boundary |
| bits:  | TBD | 8 | 1 |
| * RAW Slot Definition subfield
 |

***Modify the following paragraph in subclause 8.4.2.170b:***

The Number of Slots subfield is 8-bit unsigned integer and indicates the number of time slots (NRAW) in the RAW.

**9.19.4a.3 Slot assignment procedure in RAW**

***Modify the second paragraph of subclause 9.19.4a.3 as follows:***

A STA shall obtain the number of time slots in the RAW (NRAW) from the Number of Slots subfield in the RAW Slot Definition subfield of the RPS element. The time slots in the RAW are indexed from 0 to (NRAW - 1) as shown in Figure 9-24b (Illustration of the RAW slot assignment procedure (RAW not restricted to STAs whose AID bits are set to 1)).

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| 966 | 9.19.4a.3 | 131 | 44 | J | Since there are void AIDs that are defined as the AID that should not be assigned to a S1G STA as in 9.17b, and there may be unassigned valid AIDs in the RAW group. Both void AIDs and unassigned valid AIDs can be considered as unassigned AIDs. When RAW is not restricted to STAs whose AID bits are set to 1, if the unassigned AIDs becomes the "holes" in the RAW slot assignement and should not be considered for implicit slot allocation in 9.19.4a.3. The slot assignment for the STA to compute its allocated slot should be modified. | Modify the mapping function as "i\_slot = (x - k+ N\_offset) mod N\_RAW". Insert the text into L60 " If the RAW is restricted to STAs whose AID bits in the TIM element are set to 1, k=0; otherwise k is the number of unassigned AIDs in the RAW group that is smaller than x. If there is no unassigned AID, k=0." | Rejected – The proposed change to the mapping function does not work. A STA cannot know how many AIDs (i.e. k) are unassigned before its AID. Moreover, the void AIDs due to 9.17b should be limited to a small number of AIDs, which may have little affect to performance and the unassigned AIDs in the middle of the RAW group can be managed by the AID reassignment. |
| 967 | 9.19.4a.3 | 131 | 63 | J | To identify the unassigned AIDs, AP may indicate to the STA the unassigned AIDs explicitly. AP may indicate whether to allow the allocation of the unassigned AIDs e.g. in its capability element of beacon frame. | AP indicates the unassigned AIDs in TBD IE. | Rejected – The overhead of signaling unassigned AIDs to the STAs in the RAW Group with a new information element is large. For example, to signal just 5 AIDs, there needs to be at least 5x13bits for unknown gain. Moreover, considering unassigned AIDs within the RAW Group increases the complexity at a STA, which defeats the purpose of implicit slot allocation scheme. The unassigned AIDs can be avoided by utilizing the AID reassignment so that the RAW Group does not have unassigned AIDs.  |

**References:**