IEEE P802.11
Wireless LANs

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| LB 200 Comment Resolution for Clause 4.13 |
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Abstract

This submission proposes resolutions for comments in clause 4.13 of TGah Draft 1.2 with the following CIDs: 1012, 1013, 1014, 1015, 1411, 1667, 1801, 1819, 2323, 2324, 2333, 2358, 2359, 2360, 2610, 2611, 2612, 2700, and 2835.

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| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1012 | 4.13 | 4 | 35 | The term "group" is alredy overloaded: GCR group membership and .11ac MU-MIMO group membership.Adding another unqualified use of "group" is going to cause confusion. | Replace "Group" and "Grouping" and related terms in .11ah with a specific term. | Revised- TGah editor to make changes shown in 11-14/0337r2 under the heading for CIDs 1012, 1015, 1667, 1819, 2323, 2324, 2358, 2359, 2835.  |
| 1013 | 4.13 | 4 | 46 | "The AID assignment criteria can depend on STA location"Review the WG11 Style document. WG11 style is to use "can" in the sense of "is able to, given the rules defined in this document". If you have not described how this can can be performed, it should be an express of possibility using "might".FYI on REVmb during one ballot we had 660 separate comments on the use of "can", which gave rise to the WG11 interpretation. | Review all uses of "can" in the document (117 instances) and replace any with "might" that do not meet the WG11 meaning of the verb. | RevisedComments: Reviewed occurrences of “can” and revised to “might” in this section. TGah Editor will review all the other occurrences of “can” in other sections  |
| 1014 | 4.13 | 4 | 53 | "Grouping of non-AP STAs may be used to reduce network energy consumption""May" is used with a particular meaning in IEEE-SA standards, equivalent to "is hearby permitted to".This disagrees with common English usage, which also interprets "may" as "might".  | Review all use of "may". Replace those that do not mean "is hearby permitted to" with an alternate permitted verb (might/can/should/shall). | RevisedComments: Reviewed occurrences of “can” and revised to “might” in this section. TGah Editor will review all the other occurrences of “can” in other sections  |
| 1015 | 4.13 | 4 | 56 | "is allowed" -- what is the intended normative effect of this. Is it summarizing capability described elsewhere, or is this a normative statement. For that reason, any verbs expressing possible permission or requirement must use the official verbs (might/can/may/should/shall). | Review all 18 instances of "is allowed" and replace them with one of the approved verbs.So, for example, the cited sentence becomes: "A non-AP STA assigned in the current slot can enter Doze statne when it does not have traffic to transmit." (assuming this behaviour is described elsewhere in the draft). | Revised- TGah editor to make changes shown in 11-14/0337r2 under the heading for CIDs 1012, 1015, 1667, 1819, 2323, 2324, 2358, 2359, 2835.  |
| 1411 | 4.13 | 4 | 48 | The sentece is very unclear: "The AID assignment criteria can depend on STA location". what is AID assignment criteria? | clarify, or remove it. | AcceptedComments: The referred text is deleted in the new resolved draft text.  |
| 1667 | 4.13 | 4 | 38 | 802.11 already extensively describes group addressing of frames. Defining "groups" of STAs will only confuse the group addresses -- to which groups are the group addressed frames addressed? Use a different word for assigned bunches of STAs, for instance "partitions of STAs". Yes, "partition" currently is used in 11mc in a few places to describe fragmentation, but the formally defined term for the result is "fragment", not "partition" and, in the unlikely event there is any confusion, those uses of "partition" can be replaced with "fragment". Else, if there is a better term than "fragment" and "group" to replace "group", then use that. | Throughout the draft replace "group" with "partition" when the term is applied to these assigned groups of STAs. On line 24 replace "Grouping allows partitioning" with "Partitioning allows division" and replace "group of STAs" with "partition of STAs" (and "group" with "partition" when referring to such specified bunches of STAs) in the rest of this amendment. | Revised- TGah editor to make changes shown in 11-14/0337r2 under the heading for CIDs 1012, 1015, 1667, 1819, 2323, 2324, 2358, 2359, 2835.  |
| 1801 | 4.13 | 4 | 45 | The text is misleading, in Tgah there are multiple possibilities for grouping. For instance other grouping criteria could be based on the STA location as in the sectorization mode, or traffic type (see Sectorization mode 0)  | Please add text to clarify that this is one of many possible grouping criteria in TGah, and it is based on the RAW scheduling. | RevisedComments: Resolution similar to that for CID 1667 |
| 1819 | 4.13 | 26 | 38 | Simple "Group" or "Grouping" is maybe a poor choice as Groupcast is already used. I am not | Need to re-write this section along the lines of "Using the RAW slot assigment procedure, non-AP STAs can be particioned into different sets such that only selected sets are addressed at any one time." A general description onluy is required. Advantages and details are for Clause 9. | Revised- TGah editor to make changes shown in 11-14/0337r2 under the heading for CIDs 1012, 1015, 1667, 1819, 2323, 2324, 2358, 2359, 2835.  |
| 2323 | 4.13 | 4 | 40 | First use of RAW should spell out the acronym. | Change "RAW" to "Restricted Access Window (RAW)" | Revised- TGah editor to make changes shown in 11-14/0337r2 under the heading for CIDs 1012, 1015, 1667, 1819, 2323, 2324, 2358, 2359, 2835.  |
| 2324 | 4.13 | 4 | 46 | First use of TWT should spell out the acronym. | Change "TWT" to "Target Wakeup Time (TWT)" | Revised- TGah editor to make changes shown in 11-14/0337r2 under the heading for CIDs 1012, 1015, 1667, 1819, 2323, 2324, 2358, 2359, 2835.  |
| 2333 | 4.13 | 4 | 43 | How does grouping reduce signaling overhead? The idea to reduce medium contention is clear, but reduced signaling is not clear. | Clarify this statement and how it is accoplished. | RevisedComments: Agreed in principle and removed the sentence since it does not add evidence for the asserted text.  |
| 2358 | 4.13 | 4 | 40 | I think you're supposed to spell out abbreviations the first time | Change "RAW" to "Restricted Access Window (RAW)". Ditto TWT, etc. | Revised- TGah editor to make changes shown in 11-14/0337r2 under the heading for CIDs 1012, 1015, 1667, 1819, 2323, 2324, 2358, 2359, 2835.  |
| 2359 | 4.13 | 4 | 40 | The term "slot" is already used with a different purpose in the baseline (the unit of medium access granularity)  | Find another term | Revised- TGah editor to make changes shown in 11-14/0337r2 under the heading for CIDs 1012, 1015, 1667, 1819, 2323, 2324, 2358, 2359, 2835.  |
| 2360 | 4.13 | 4 | 43 | "Grouping can also reduce the signaling overhead." -- how? | Add some outline justification | RevisedResolution similar to that for CID 2333  |
| 2610 | 4.13 | 4 | 36 | Clauses 4.12, 4.14, and 4.15 seem to be specific MAC functionality and perhaps should be removed from cluase 4. | As in comment | Rejected:Comment: They are STA attributes and not MAC functionalities.  |
| 2611 | 4.13 | 4 | 50 | The last sentence of the paragraph starting on line 45 should be replaced with a simple statement that group assignement criteria are beyond the scope of the standard | replace the sentence with "Group assignmenet criteria are beyond the scope of standard" | Agreed in principle and Revised |
| 2612 | 4.13 | 4 | 53 | What is network energy consumption? How is it defined? And how is measured? | Clarify or delete the reference to network energy consumption. | Agreed in principle and Revised |
| 2700 | 4.13 | 4 | 38 | Please explain the difference between Grouping (Section 4.13) and Sectorization. Can a sector have multiple groups? Definitions of both imply partitioning of STAs into groups/sets/clusters. Isnt TXOP-based sectorization also a kind of grouping? | Please explain the difference between Grouping (Section 4.13) and Sectorization. Can a sector have multiple groups? Definitiions of both imply partitioning of STAs into groups/sets/clusters | Agreed in principle and Revised  |
| 2835 | 4.13 | 4 | 38 | A couple of new terms are first introduced in this paragraph such as RAW, TWT, AID. Suggest to re-phase the paragraph to clarify their relationship. | Please clarify | Revised- TGah editor to make changes shown in 11-14/0337r2 under the heading for CIDs 1012, 1015, 1667, 1819, 2323, 2324, 2358, 2359, 2835.  |

**CID 1012, 1015, 1667, 1819, 2323, 2324, 2358, 2359, 2835:**

***Discussions:***

To address the concern of CID 1012, I have replaced the word “grouping” with the word “clustering” and modifying the word “group” to qualified group like “RAW group” or “sectorization group.”

To address the concern of CID 2359, I have modified the term “slot” to “RAW slot” in order to differentiate between a slot used in the baseline and a slot used within a RAW.

**Instruction to TGah Editor: Please replace the existing draft text in Page 6/ Line 35 with the following text in subclauses 4.13:**

**4.13 Grouping of non-AP STAs**

An S1G STA might support partitioning of the non-AP STAs within a BSS and scheduling channel access within a restricted access window (RAW) for STAs belonging to a partition. This type of partitioning, termed as RAW grouping is discussed in Clause 9.20.5 Restricted Access Window (RAW) Operation. An S1G STA might support another method by partitioning STAs in a restricted geographical area and a restricted time interval as in sectorized group operation and is presented in Clause 9.47.3 Group Sectorization Operation. Further, an AP might also assign STAs supporting target wake time (TWT) to predefined TWT groups that have TWT values that lie within a specific interval of TSF values. The TWT grouping concept is illustrated in Clause 9.41.4 TWT Grouping.