IEEE P802.11
Wireless LANs

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| LB 200 clause 9.47.3 comment resolution |
| Date: 2014-01-20 |
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Abstract

This submission proposes comment resolutions of the clause 9.47.3f from TGah Draft 1.0.

* CIDs: 1539,1540,2841 and 2613-2614

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 TGah Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGah Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGah Editor: Editing instructions preceded by “TGah Editor” are instructions to the TGah editor to modify existing material in the TGah draft. As a result of adopting the changes, the TGah editor will execute the instructions rather than copy them to the TGah Draft.***

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 1539 | 9.47.3 | 197 | What is the behaviour of STA not supporting sectorization when it receives a sectorized Beacon? Should it be able to decode the "Sector Operation element" and disregard the Beacon? | as in the comment | Counter.  |
| 1540 | 9.47.3 | 197 | “Stations in different sectors may be allowedto transmit at the same time if more than one sector is active at one moment." | how can a STA transmit two message at the same time? Does it also include APs? | Counter. |
| 2841 | 9.47.3 | 198 | Need clarifications of sectorization in Figure 9-91:is each sector overlapped with other sector in the same BSS? | Please clarify | Counter.  |
| 2613 | 4.16 | 4  | Here is another form of STA grouping. Perhaps it needs to be discussed in the STA grouping clause | as in comment | Counter. |
| 2614 | 4.16 |  4 | The term "Group ID" was used before in 802.11ac in MU MIMO context. Does Group ID in this clause mean the same Group ID used for MU MIMO? | clarify  | Counter.  |

**CID1539**

**Discussion:**

Commenter asks for more clarifications regarding the STA behavior when the STA does not support this feature .

**Propose:**

Counter.

*Instruct the editor to add the following text on page P197 L13.*

*““A STA, which is not sectorized beam-capable, may skip the  S1G Sector Operation element in the beacon. ~~A STA, which does not support the Group Sectorization, is allowed to transmit at any time, that is its transmission is not restricted to a sector duration~~* In a BSS where the AP doesn’t support Group Sectorization, a STA, whether it is sectorized beam-capable or not,  is allowed to transmit at any ~~time~~ beacon interval.*”*

**CID1540**

**Discussion:**

Commenter asks for clarification of statement “Stations in different sectors may be allowed to transmit at the same time if more than one sector is active at one moment. “

**Propose:**

Counter.

*Instruct the editor to change the text in P197L27: “Stations in different sectors may be allowed to transmit at the same time if more than one sector is active at one moment. “ with “Two sectors could be active at the same time, that is they can overlap in time. In such case, STAs from different sectors are allowed to transmit while their sectors are active”*

**CID2841**

**Discussion:**

Commenter asks for clarifying text for the figure 9-91

**Propose:**

Counter.

 *Instruct the editor to add the following text in P198L13: “Two or more sectors may be active at the same time that is their active time duration can overlap. In this case the STAs are allowed to transmit in more than one sector. Figure 9-91 presents an example of three non-ovelapping sectors followed by an omni period. Each sector starts with sectorized beacon that provides the sector ID and the duration of sector activity.”*

**CID2613**

**Discussion:**

Commenter observes that this is another grouping case and suggest be addressed in STA grouping clause.

**Propose:**

Counter

*Instruct the editor to change the text from the STA grouping clause 4.13. P4L39:*

*Grouping allows partitioning of the non-AP STAs within a BSS into groups and restricting channel access*

*only to STAs belonging to a given group at any given time period. Grouping can help to reduce contention and to avoid*

*simultaneous transmissions from a large number of STAs hidden from each other by restricting access to the*

*medium to a subset of the STAs associated with the AP. In S1G the STAs grouping may be used to allow a set of STas to operate in a restricted time interval as in RAW or in a restricted geographical area and a restricted time interval as group sectorization operation. The group sectorization opertation is presented in clause 9.47.3 Grouping can also reduce the signaling overhead.*

*The assignment of non-AP STAs into different RAW groups is based on the RAW slot assignment procedure.The group access restriction in RAW is enabled by allocating slot duration and a number of slots in aRAW. The group access restriction in group sectorization is limited to the sector duration via a sectorized beacon broadcast. An AP may also assign a STA supporting TWT to one of the predefined TWT groups. The AID assignment criteria can depend on STA location, for example, when non-AP STAs sharing common location information are placed inside of the same group. Such assignment is a form of sectorization. Group assignment criteria can be based on the sleeping or traffic requirements of non-AP STAs as well as other criteria that are beyond the scope of the standard. Grouping of non-AP STAs may be used to reduce network energy consumption, as STAs that are not in the group assigned to the current slot can enter a doze state until their slot time or assigned TWT arrives. Doze state is allowed for non-AP STAs assigned in the current slot when they do not have traffic to transmit.*

 **CID2614**

**Discussion:**

Commenter notices that GrpID was already used in the MU-MIMO procedure and asks for clarifying text. The group ID does not have the same meaning as in MU-MIMO. The group ID meaning is specific to the group sectorization and it is defined in 4.16. Group ID is a generic term and it is used in different places such as P124 8.4.2.170v Group ID List element. The meaning of the Group ID term is defined by the context and there is not danger for confusion. The text needs to be consistent between different section that address grouping.

**Propose:**

Counter.

*Instruct the editor to change from Group ID to SIG Group ID to avoid confusion with 11ac MU-MIMO Group ID.*