IEEE P802.11
Wireless LANs

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| Comment Resolution on TIM Broadcast |
| Date: 2017-01-17 |
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Abstract

This submission proposes resolutions of comments received from TGax comment collection (TGax Draft 1.0).

* CIDs: 5973 , 8543 , 9697 , 9870 , 9871 (5 CIDs)
1. **Introduction**

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. The introduction and the explanation of the proposed changes are 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.***

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| CID | Commenter | Page Number | Line Number | Comment | Proposed Change | Resolution |
| 5973 | Jarkko Kneckt | 143 | 48 | Currently the Check Beacon field is updated when the Broadcast TWT element is added or removed from Beacon. To avoid Beacon bloat, the Broadcast TWT element should not be present in every beacon frame, but then the Check Beacon field may request that non-AP STAs receive the Beacon unnecesserily which may increase the non-AP STA power consumption. It would be better to update the Check Beacon field when information in Broadcast TWT element is modified. Also some description should be added that TWT element may not be present in every beacon. | Change the n) Inclusion of a Broadcast TWT element to n) Modification of a Broadcast TWT element. Also please add a note saying that Broadcast TWT element may not be present in every Beacon frame and modified TWT broadcast element means a change in the parameter value. | Rejected-Even if the Broadcast TWT element is not modified, the inclusion of a Broadcast TWT element may indicate a different start time of the TWT SPs. In that case, as long as a Broadcast TWT element is included in the Beacon frame, the STA shall receive that Beacon frame and update the time of the next TWT SPs.Whenever the Broadcast TWT element is modified, it must be included in the next Beacon frame. Hence, the inclusion of a Broadcast TWT element is surficient for a STA to check the Beacon in the case of Broadcast TWT element is modified. |
| 8543 | Rojan Chitrakar | 143 | 49 | Inclusion of BSS Color Change Announcement element should also be classified as a critical update. | Add "Inclusion of BSS Color Change Announcement element" to the list. | Revised-An item “o) Inclusion of BSS Color Change Announcement element” is added in D1.2, which resolves the comment |
| 9697 | Yongho Seok | 143 | 49 | A critical update should include the following case:"Inclusion of BSS Color Change Announcement element" | As per commnet. | Revised-An item “o) Inclusion of BSS Color Change Announcement element” is added in D1.2, which resolves the comment |
| 9870 | Young Hoon Kwon | 143 | 48 | One Broadcast TWT element can have multiple broadcast TWT schedules. Therefore, even in case there'sa Broadcast TWT element included in a Beacon frame, its scheduled access can be modified at any time. In this sense, any change/modification in Broadcast TWT element may be considered as a critical update. | Change the item n) to "Inclusion or modification of a Broadcast TWT element" | Rejected-If the Broadcast TWT element is modified, it must be included in the next Beacon frame. Hence, the inclusion of a Broadcast TWT element is surficient for a STA to check the Beacon in the case of Broadcast TWT element is modified. |
| 9871 | Young Hoon Kwon | 143 | 49 | Similar to item l), modification of the HE Operation element needs to be considered as a critical update | At the end of the paragraph, add another bullet that says "Modification of the HE Operation element". | Accepted- |
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1. **Proposed changes**

***TGax editor: Modify section 11.2.2.17 as the following:***

**11.2.2.17 TIM Broadcast**

***Change the 11th paragraph as follows:***

The AP shall increase the value (modulo 256) of the Check Beacon field in the next transmitted TIM frame(s) when a critical update occurs to any of the elements inside the Beacon frame.The following events shall classify as a critical update:

a) Inclusion of a Channel Switch Announcement element

b) Inclusion of an Extended Channel Switch Announcement element

c) Modification of the EDCA parameters element

d) Inclusion of a Quiet element

e) Modification of the DSSS Parameter Set

f) Modification of the CF Parameter Set element

g) Modification of the HT Operation element

h) Inclusion of a Wide Bandwidth Channel Switch element

i) Inclusion of a Channel Switch Wrapper element

j) Inclusion of an Operating Mode Notification element

k) Inclusion of a Quiet Channel element

l) Modification of the VHT Operation element

m) Modification of ~~an~~ the HE Operation element

n) Inclusion of a Broadcast TWT element

o) Inclusion of BSS Color Change Announcement element(#4910)