IEEE P802.11  
Wireless LANs

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | CR TWT IE CID 4767 | | | | | | Date: 2017-05-02 | | | | | | Author(s): | | | | | | Name | Affiliation | Address | Phone | email | | Matthew Fischer | Broadcom |  |  | [Matthew.fischer@broadcom.com](mailto:Matthew.fischer@broadcom.com) | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |

Abstract

Comment resolution with proposed changes to TGax D1.2 for CIDs from the WG LB for TGax related to 9.4.2.200 which is the TWT Information Element.

The CID list is:

4767

The proposed changes on this document are based on TGax Draft 1.2.

**REVISION NOTES:**

**R0**:

initial

**END OF REVISION NOTES**

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.***

**CIDs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 4767 | Alfred Asterjadhi | 70.21 | 9.4.2.200 | Couple or more things: There is another table that performs a similar function in 10.43.smth. Maybe just keep that one and undo the changes to this table. This table also contains some inconsistencies (compared to (27.7.3.4 Negotiation of wake TBTT and listen interval) some values are not right), compared to 10.43.1 (TWT overview) it does not contain the listing in dependency of the broadcast field values.) | As in comment (my preference is to have one Table, and that contains all possible combos in one place). | Revise – TGax editor to make changes as shown in 11-17/0819r0 that are marked with CID 4767 |

**Discussion:**

TWT IE changes based on CIDs as shown above.

**Proposed Changes to Draft Text of TGax D1.2:**

TGax editor: change Table 10-19a as shown:

**10.43.1 TWT overview**

|  |  |  |  |
| --- | --- | --- | --- |
| * TWT setup exchange command interpretation | | |  |
| Initiating frame | Response frame |  |  |
| TWT Setup Command field value within a TWT Setup frame transmitted from first STA to second STA | TWT Setup Command field value within a TWT Setup frame transmitted from second STA to first STA | TWT condition after the completion of the exchange if a TWT agreement between the transmitter of the initiating frame and the transmitter of the responding frame with the TWT ID indicated in the Initiating frame did not exist at the time of the transmission of the Initiating frame | TWT condition after the completion of the exchange if a TWT agreement between the transmitter of the initiating frame and the transmitter of the responding frame with the TWT ID indicated in the Initiating frame did exist at the time of the transmission of the Initiating frame |
| Request TWT or Suggest TWT or Demand TWT with Wake TBTT Negotiation subfield = don’t care | No frame transmitted | No new active individual TWT agreement exists with the TWT Flow ID corresponding to the Flow ID in the initiating frame. No new active Broadcast individual TWT agreement exists. | No change to the existing TWT agreement |
| Request TWT or Demand TWT with Wake TBTT Negotiation subfield = 0 | Accept TWT with Broadcast subfield = 0 | An individual TWT agreement is now active and is using the TWT parameters identified in the initiating frame. The TWT parameters in the response frame match the TWT parameters of the initiating frame. | The existing TWT agreement parameters are updated to the values in the response frame |
| Suggest TWT with Wake TBTT Negotiation subfield = 0 | Accept TWT with Broadcast subfield = 0 | An individual TWT agreement is now active and is using the TWT parameters identified in the ~~responding~~ response frame. | The existing TWT agreement parameters are updated to the values in the response frame |
| Request TWT or Suggest TWT or Demand TWT with Wake TBTT Negotiation subfield = 0 | Accept TWT with Broadcast subfield = 1 | This response is not allowed. | This response is not allowed. |
| Suggest TWT or Demand TWT with Wake TBTT Negotiation subfield = 0 | Alternate TWT or Dictate TWT with Broadcast subfield = 0 | This response is not allowed. | This response is not allowed. |
| Request TWT with Wake TBTT Negotiation subfield = 0 | Alternate TWT with Broadcast subfield = 0 | No active individual TWT agreement exists with the associated TWT Flow ID. The responder is offering an alternative set of parameters vs. those indicated in the initiating frame, as a means of negotiating TWT parameters with the requester. The requesting STA can send a new request with any set of TWT parameters and the responder might entertain the creation of an individual TWT agreement using those parameters. | No change to the existing TWT agreement |
| Request TWT with Wake TBTT Negotiation subfield = 0 | Dictate TWT with Broadcast subfield = 0 | No active individual TWT agreement exists with the associated TWT Flow ID. The responder offers an alternative set of parameters vs. those indicated in the TWT request. By selecting “Dictate TWT”, the responder indicates that it is not willing to accept any other TWT parameters for the requesting STA at this time. The requesting STA can send a new request, but will only receive an Accept TWT if it uses the dictated TWT parameters. | No change to the existing TWT agreement |
| Request TWT with Wake TBTT Negotiation subfield = 0 | Dictate TWT with Broadcast subfield = 1 | No active individual TWT agreement exists with the associated TWT Flow ID. A broadcast TWT agreement is now active and is using the TWT parameters identified in the ~~responding frame~~ response frame including a Broadcast TWT ID subfield. The broadcast TWT agreement is not necessarily a newly created broadcast TWT agreement. The responding STA will not create any new individual TWT agreement with the requester at this time. The STA transmitting the initiating frame is not a member of the broadcast TWT. | No change to the existing TWT agreement |
| Request TWT or Suggest TWT or Demand TWT with Wake TBTT Negotiation subfield = 0 | Reject TWT with Broadcast subfield = 0 | No active individual TWT agreement exists with the associated TWT Flow ID. The responding STA will not create any new individual TWT agreement with the requester at this time. | The TWT agreement corresponding to the TWT ID of the initiating frame is terminated. |
| Suggest TWT or Demand TWT with Wake TBTT Negotiation subfield = 1 (see NOTE 3) | Accept TWT or Alternate TWT or Dictate TWT or Reject TWT with Broadcast subfield = 0 | This response is not allowed. | This response is not allowed. |
| Demand TWT with Wake TBTT Negotiation subfield = 1 (see NOTE 3) | Accept TWT with Wake TBTT Negotiation subfield = 1 and Broadcast subfield = 1 | An active broadcast TWT agreement exists or has been created with the TWT parameters indicated in the initiating frame and the STA transmitting the initiating frame is a member of the Broadcast TWT identified by the Broadcast TWT ID and the TA of the response frame. | The existing TWT agreement parameters are updated to the values in the response frame |
| Suggest TWT with Wake TBTT Negotiation subfield = 1 (see NOTE 3) | Accept TWT with Wake TBTT Negotiation subfield = 1 and Broadcast subfield = 1 | An active broadcast TWT agreement exists or has been created with the TWT parameters indicated in the ~~responding frame~~ response frame and the STA transmitting the initiating frame is a member of the broadcast TWT identified by the broadcast TWT ID and the TA of the response frame. | The existing TWT agreement parameters are updated to the values in the response frame |
| Request TWT with Wake TBTT Negotiation subfield = 1 (see NOTE 3) | Alternate TWT with Wake TBTT Negotiation subfield = 1 and Broadcast subfield = 1 | No active broadcast TWT agreement has been created with the TWT parameters indicated in the initiating frame. The responder is offering an alternative set of parameters vs. those indicated in the initiating frame, as a means of negotiating TWT parameters with the requester. The requesting STA can send a new request with any set of TWT parameters and the responder might entertain the creation of a new broadcast TWT agreement using those parameters. | No change to the existing TWT agreement |
| Suggest TWT or Demand TWT with Wake TBTT Negotiation subfield = 1 (see NOTE 3) | Alternate TWT with Broadcast subfield = 1 | This response is not allowed. | This response is not allowed. |
| Suggest TWT or Demand TWT with Wake TBTT Negotiation subfield = 1 (see NOTE 3) | Dictate TWT with Broadcast subfield = 1 | An active broadcast TWT agreement is either created or already exists and is using the TWT parameters identified in the ~~responding frame~~ response frame, including a broadcast TWT ID. The responding STA will not create any new broadcast TWT agreement with the requester at this time | No change to the existing TWT agreement |
| Suggest TWT or Demand TWT with Wake TBTT Negotiation subfield = 1 (see NOTE 3) | Reject TWT with Broadcast subfield = 1 | ~~No new active broadcast TWT agreement is created and the responding STA will not create any new broadcast TWT agreement at this time.~~  The STA transmitting the initiating frame is a not a member of a broadcast TWT identified by the broadcast TWT ID and the TA of the response frame, if such a broadcast TWT exists. | The TWT agreement corresponding to the TWT ID of the initiating frame is terminated. |
| Accept TWT or Alternate TWT or Dictate TWT or Reject TWT with Wake TBTT Negotiation subfield = 0 | No frame transmitted | This exchange is not allowed. | This exchange is not allowed. |
| Accept TWT with Wake TBTT Negotiation subfield = ~~1~~ 0 and Broadcast subfield = 1 | No frame transmitted | ~~A~~ When transmitted by a scheduling STA, a broadcast TWT agreement exists and is using the TWT parameters identified in the initiating frame including a broadcast TWT ID.  Not permitted to be transmitted by a scheduled STA. | The existing TWT agreement parameters are updated to the values in the initiating frame |
| Alternate TWT or Dictate TWT with Wake TBTT Negotiation subfield = ~~1~~ 0 and Broadcast subfield = 1 | No frame transmitted | ~~The~~ When transmitted by a scheduling STA, the TWT parameters of the existing broadcast TWT agreement identified by the TWT Flow ID and the TA of the initiating frame have been updated to the values of the TWT parameters of the initiating frame including a broadcast TWT ID.  Not permitted to be transmitted by a scheduled STA. | The existing TWT agreement parameters are updated to the values in the initiating frame |
| Reject TWT with Wake TBTT Negotiation subfield = ~~1~~ 0 and Broadcast subfield = 1 | No frame transmitted | ~~The~~ When transmitted by a scheduled STA, the scheduled STA membership in the broadcast TWT agreement identified by the ~~TWT Flow ID~~ broadcast TWT ID and the ~~TA~~ RA of the initiating frame ~~frame~~ is terminated.  Not permitted to be transmitted by a scheduling STA. | The TWT agreement corresponding to the TWT ID of the initiating frame is terminated. |
| Reject TWT with Wake TBTT Negotiation subfield = 1 and Broadcast subfield = 1 | No frame transmitted | When transmitted by a scheduling STA, the broadcast TWT agreement identified by the broadcast TWT ID and the TA of the initiating frame frame is terminated.  Not permitted to be transmitted by a scheduled STA. | The TWT agreement corresponding to the TWT ID of the initiating frame is terminated. |
| Reject TWT with Wake TBTT Negotiation subfield = 0 and Broadcast subfield = 0 | No frame transmitted | The individual TWT agreement identified by the TA, RA pair of the transmitted frame and with the corresponding TWT Flow ID is terminated. | The TWT agreement corresponding to the TWT ID of the initiating frame is terminated. |
| NOTE 1—Initiating frames ~~are all required to~~ not explicitly indicating broadcast have Broadcast subfield value of 0.  NOTE 2—Request frame settings not listed in the table are not allowed.  NOTE 3 – When transmitted by a requesting STA or scheduled STA, when Wake TBTT Negotiation subfield = 1, the value of the Broadcast subfield is also 1. | | |  |

**End of proposed changes.**