IEEE P802.11
Wireless LANs

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| Comment resolution for several miscellaneous comments part 2 |
| Date: 2018-05-01 |
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Abstract

This submission proposes resolutions for comments related to TGax D2.0 with the following CIDs:

* 11353, 11830, 13510, 12432 11019, 12421 (6 CIDs)

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Incorporated some feedback received during the presentation (changes in green). CIDs 13510 and 11019 are deferred.

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.***

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| **CID** | **Commenter** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 11353 | Alfred Asterjadhi | 286.11 | Clearly state that the frame in this case (with EOSP) can be either individually addressed or broadcast. Saying frame in general leaves space to ambiguity | As in comment. | Revised –Agree in principle with the comment. Proposed resolution accounts for the suggested change. The proposed resolution also calls out the frames that carry the EOSP field by name so that there is no ambiguity left.TGax editor to make the changes shown in 11-18/0660r1 under all headings that include CID 11353 and all other headings with AA. |
| 11830 | Guoqing Li | 194.21 | As 11ax is transitioning into a scheduling-based system, there is a need for AP to collect more info on STA's traffic and QoS requirement for efficent scheduling, which is what TSEPC is for. Currently, TSPEC is closely tied to HCCA which is deprecated for HE STAs. Modify the text on TSPEC to make sure that HE STA can use it efficiently and correctly. | Modify the text on TSPEC to make sure that HE STA can use it efficiently and correctly. | Revised –This CID is a duplicate of CID 18555 which was already resolved in 11-18/182r5. Proposed resolution is the same as that proposed for CID 18555.TGax editor to make the changes shown in 11-18/0182r5 under all headings that include CID 18555. |
| 13510 | Simone Merlin | 283.63 | Note font size and indentation needs to be fixed | As in comment | Revised –Agree in principle with the comment. Proposed resolution is to convert the note to a normative statement.TGax editor to make the changes shown in 11-18/0660r1 under all headings that include CID 13510. |
| 12432 | Liwen Chu | 163.10 | TWT element should be able to be added to TDLS Setup frames | As in comment | Revised –Agree in principle with the comment. Proposed resolution adds the TWT element in the TDLS Setup request and response frames. TGax editor to make the changes shown in 11-18/0660r1 under all headings that include CID 12432. |
| 11019 | Abhishek Patil | 137.33 | OPS Support subfield applies only if the STA supports Broadcast TWT | Replace text in 'Encoding' column to:"If Broadcast TWT Support subfield is 1 Set to 1 if supported. Set to 0 otherwise.Reserved otherwise." | Revised –Agree in principle. Only the AP is required to support broadcast TWT since it needs to include the TWT element (see 27.14.3.2). The STA can do whatever it wants (see 27.14.3.3). Accounts for these suggestions.TGax editor to make the changes shown in 11-18/0661r0 under all headings that include CID 11019. |
| 12421 | Liwen Chu | 144.09 | This field is never used in other place. | Remove it or add normative behavior of it. | Revised –Agree in principle. The comment refers to the capability field SRP-based SR Support”. The proposed resolution is to add the related normative behavior.TGax editor to make the changes shown in 11-18/0660r1 under all headings that include CID 12421 and all other headings with AA. |

**Discussion: *None*.**

**27.7.5 PS operation during TWT SPs**

**TGax Editor: *Change the paragraphs below of this subclause as follows (#CID 11353, Ed):***

A TWT requesting STA or a TWT scheduled STA shall classify any of the following events as a TWT SP termination event:

1. The successful exchange of a TWT Information frame with the TWT responding STA or the TWT scheduling AP (see 27.7.4 (Use of TWT Information frames)).
2. The transmission by the TWT requesting STA or TWT scheduled STA of an acknowledgment in response to an individually addressed QoS Data or QoS Null*(#11353)* frame sent by the TWT responding STA or TWT scheduling AP, respectively, that had the EOSP subfield equal to 1.
3. The transmission by the TWT requesting STA or TWT scheduled STA of an acknowledgment in response to an individually addressed frame, which is neither a QoS Data frame nor a QoS Null frame, sent by the TWT responding STA or TWT scheduling AP, respectively with the More Data field equal to 0.*(#11353)*
4. The reception of an individually addressed or broadcast QoS Data or QoS Null frame sent by the TWT responding STA or TWT scheduling AP that does not solicit an immediate response and that had an EOSP subfield equal to 1.*(#11353)*
5. The reception of an individually addressed frame, which is neither QoS Data nor QoS Null frame, sent by the TWT responding STA or TWT scheduling AP that does not solicit an immediate response and that had the More Data field equal to 0.*(#11353)*
6. The reception of a Trigger frame sent by the TWT responding STA or TWT scheduling AP that has the More TF field equal to 0 and is not intended for the TWT requesting STA or TWT scheduled STA provided that the TWT requesting STA or TWT scheduled STA is either awake for an announced trigger-enabled TWT SP but did not transmit an indication that it is in the awake state to the TWT responding STA or TWT scheduling AP or is awake for an unannounced trigger-enabled TWT SP.

The classification of a More Data field equal to 0 in an Ack, BlockAck and Multi-STA BlockAck frame as an event that terminates a TWT SP is only possible when both STAs have indicated support of transmitting or receiving the frame with a nonzero More Data subfield, which is indicated in the More Data Ack subfield of the QoS Info field of frames they transmit (see 11.2.2 (Power management in a non-DMG infrastructure network)).

NOTE 1—A STA participating in multiple TWT SPs which overlap in time stays in the awake state until the latest AdjustedMinimumTWTWakeDuration time of all of the TWT SPs expires, except that a TWT SP*(#AA)* termination event causes all of the overlapping TWT SPs to terminate.

**27.7.4 Use of TWT Information frames**

**27.7.4.1 General**

**TGax Editor: *Change the paragraphs below of this subclause as follows (#CID 13510):***

The TWT Information frame shall have the Response Requested subfield equal to 0, the Next TWT Request subfield equal to 0, and one of the following:

 …

* A Next TWT subfield that is present when the frame is transmitted by a TWT requesting STA, a TWT scheduled STA, or any HE STA to a peer STA that supports TWT.
	+ The Next TWT indicates the earliest TWT at which the TWT session is resumed and shall be selected from existing TWT values for that TWT session if the Flexible TWT Schedule Support field of in the HE Capabilities element received from the peer STA is 0.
	+ The Next TWT may contain any nonzero value if Flexible TWT Schedule Support field of in the HE Capabilities element received from the peer STA is 1. The TWT requesting STA, TWT scheduled STA, or peer STA that transmits the TWT Information frame shall indicate in the Power Management subfield of the Frame Control field of the TWT Information frame the PM mode that the STA will be in at the time indicated in the Next TWT field of the TWT Information frame.*(#13510)*
* TDLS Action field formats
* TDLS Setup Request Action field format

**TGax Editor: *Change the table below of this subclause as follows (#CID 12432):***

Insert the following new row into Table 9-343 (Information for TDLS Setup Request Action field) after the row for Order 23:

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| * Information for TDLS Setup Request Action field
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| Order | Information | Notes |
| 24 | HE Capabilities | The HE Capabilities element is present when dot11HEOptionImplemented is true; otherwise it is not present. The HE Capabilities element is defined in 9.4.2.237 (HE Capabilities element) |
| 25 | TWT |

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| The TWT element is optionally present if dot11TWTOptionActivated is true; otherwise not present. The Triggered subfield and the Negotiation Type subfields of the TWT element are set to 0. *(#12432)* |

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* TDLS Setup Response Action field format

**TGax Editor: *Change the table below of this subclause as follows (#CID 12432):***

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| * Information for TDLS Setup Response Action field
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| Order | Information | Notes |
| 26 | HE Capabilities | The HE Capabilities element is present when dot11HEOptionImplemented is true and the Status Code is SUCCESS; otherwise it is not present. The HE Capabilities element is defined in 9.4.2.237 (HE Capabilities element) |
| 27 |  TWT | The TWT element is present if dot11TWTOptionActivated is true and the TWT element is present in the TDLS Setup Request frame that elicited this TDLS Setup Response frame. The TWT element is optionally present if dot11TWTOptionActivated is true and the TWT Requester Support field in the HE Capabilities in the TDLS Setup Request frame that elicited this TDLS Setup Response frame is 1. Otherwise, the TWT element is not present.The Triggered subfield and the Negotiation Type subfields of the TWT element are set to 0.  *(#12432)* |

**27.1 Introduction**

**TGax Editor: *Change the paragraphs below of this subclause as follows (#CID AA):***

An HE STA supports the MAC and MLME functions defined in Clause 27 in addition to the MAC functions defined in Clause 10, the MLME functions defined in Clause 11, and the security functions defined in Clause 12, except when the functions in Clause 27 supersede the functions in Clause 10 or Clause 11. Frame exchanges are still considered as initiated by the STA as defined in Clause 11, and Clause 12 even if the initiating frame of the frame exchange is sent in response to a Trigger frame as defined in the subclauses below.*(#AA)*

**9.4.2.237.2 HE MAC Capabilities Information field**

**TGax Editor: *Change the row below of Table 9-262z—Subfields of the HE MAC Capabilities Information field as follows (#CID 11019):***

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| OPS Support | For an AP, indicates support for encoding OPS information in the TIM element of FILS Discovery frames or TIM frames as described in 27.14.3.2 (AP operation for opportunistic power save). For a non-AP STA, indicates support for receiving the opportunistic power save encoded TIM elements. | For an AP:Set to 1 if supported and Broadcast TWT Support field is 1. Set to 0 otherwise.For a non-AP STA:Set to 1 if supported. Set to 0 otherwise. *(#11019)* |

**27.9.3 SRP-based spatial reuse operation**

**TGax Editor: *Change the paragraphs below of this subclause as follows (#CID 12421):***

An HE STA shall set the SRP-based SR Support field to 1 in the HE Capabilities element it transmits if it supports transmitting an SR PPDU under the conditions specified in this subclause; otherwise the STA shall set the SRP-based SR Support field to 0. The HE STA may transmit the SR PPDU to a STA that has indicated support for the role of SR Responder as defined below. *(#12421)*