IEEE P802.11  
Wireless LANs

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| CR for TSPEC | | | | |
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Abstract

This document provides comment resolution for the following CIDs: 15093, 15130, 15131, 15752 15753 and 17048.

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** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 15093 | Abhishek Patil | 303.01 | 27.5.7 | An HE AP does not respond to an ADDTS Request from a non-AP HE STA. Does that mean HE STAs cannot establish a TS Setup (11.4.4)? | Clarify the condition under which an AP doesn't respond - i.e., differentiate between a non-AP STA reporting TSPEC versus STA requesting a TS setup. | Revised.  There is no need to restrict the HE STA from using schedule. The ADDTS use in clause 11.4.4 and 27.5.3 is clarified.  Please implement the changes identified for CID15093 shown in document 11-18-1830r1. |
| 15130 | Albert Petrick | 133.09 | 9.4.2.30 | Table 9-141 describes the selection Bit 14 and B15 Ack Policy subfield for "Normal Acknowledgment" . Normal Acknowledgement is not defined. The term is not used 802.11-2016 10.3.2.9 Acknowledgment Procedure as referenced in D3.0 | Remove "Normal" or define the term. Removing the word Normal clears up any ambiguities | Revised.  The normal acknowledgement is named as normal Ack in other parts of the spec.  Please implement the changes identified for CID15130 shown in document 11-18-1830r1. |
| 15131 | Albert Petrick | 133.24 | 9.4.2.30 | Missing table 9-140 reference in text for Access Policy subfield. | Change to read....When the Access Policy subfield shown in Table 9-140 is equal to.... | Accept. |
| 15752 | Jarkko Kneckt | 302.56 | 27.5.7 | The clause name is not generic. | Change the name of the clause to Persistent scheduling. | Revised.  The section is about TSPEC handling, so change the title to Use of TSPEC by HE STAs.  Please implement the changes identified for CID15752 shown in document 11-18-1830r1. |
| 15753 | Jarkko Kneckt | 302.61 | 27.5.7 | Unclear text | Change: "in order to facilitate efficient scheduling in the HE APs' MU operations." to "in order to facilitate efficient scheduling of the MU transmissions." | Revised.  Explanation of the MU Operations term is added.  Please implement the changes identified for CID15753 shown in document 11-18-1830r1. |
| 17048 | Yongho Seok | 133.28 | 9.4.2.30 | "For HE STAs the Scheduling subfield is reserved."  There is no reason that this field is reserved to an HE STA. Please define the Scheduling subfield for an HE STA based on 802.11ax feature. | As in comment. | Revised  Agree in principle. There is no need to distinguish HE and non-HE STA on the use of this field, so removing the dinstinction in the text.  Please implement the changes identified for CID17048 shown in document 11-18-1830r1. |

**9.4.2.29 TSPEC element**

*TGax Editor: Modify the table 9-161 in clause 9.4.2.29 as shown below:*

**Table 9-161 – TS Info Ack Policy subfield encoding**

|  |  |  |
| --- | --- | --- |
| **Bit 14** | **Bit 15** | **Usage** |
| 0 | 0 | Normal Ack [#15130]  The addressed recipient returns an Ack or QoS +CF-Ack frame after a SIFS, according to the procedures defined in 10.3.2.9 (Acknowledgment procedure), 10.4.4 (PCF transfer procedure), and 10.22.3.5 (HCCA transfer rules). |
| 1 | 0 | No Ack: The recipient(s) do not acknowledge the transmission. |
| 0 | 1 | Reserved |
| 1 | 1 | Block Ack: A separate block ack mechanism described in 10.24 (Block acknowledgment (block ack)) is used. |

The Schedule subfield is 1 bit in length and specifies the requested type of schedule. The [#17048]setting of the subfield when the access policy is EDCA is shown in Table 9-142 (Setting of Schedule subfield). When the Access Policy subfield shown in Table 9-140 [#15131] is equal to any value other than EDCA, the Schedule subfield is reserved. When the Schedule and APSD subfields are equal to 1, the AP sets the aggregation bit to 1, indicating that an aggregate schedule is being provided to the STA. An HE non-AP STA may set the Schedule and APSD subfields to value 0 in a TSPEC transmitted in ADDTS Request to provide its traffic characteristics and QoS requirements as decribed in 27.5.7(Use of TSPEC by HE STAs). [#17048, #15093]

***TGax Editor:*** *Modify the first paragraph of the clause 11.4.4.4 as follows*

**11.4.4.4 TS setup procedures for both AP and non-AP STA initiation**

The non-AP STA’s SME decides that a TS needs to be created or HE non-AP STA traffic characteristics and QoS requirements needs to be provided. The mechanism to provide traffic characteristics and QoS requirements are described in 27.5.7(Use odf TSPEC by HE STAs). [**#**17084, #15093]

***TGax Editor:*** *Modify the title of the clause 27.5.7 as follows*

**27.5.7 Use of TSPEC by HE STAs[#15752]**

In addition to the TS Setup operations as described in 11.4.4(TS setup), a non-AP HE STA may use a TSPEC contained in a Basic ADDTS Request frame to provide its(#15754) traffic characteristics and QoS requirements to an HE AP that supports the reception of Basic ADDTS Request frame in order to facilitate efficient scheduling for [#15753]HE APs' MU operations, where MU operations refers to UL MU and DL MU. A TSPEC provided by a non-AP HE STA is used by a receiving HE AP to facilitate the creation of a schedule for MU operation. A TSPEC provided by a non-AP HE STA to an HE AP is uniquely identified by the TSID subfield and the MAC address of the non-AP HE STA. The method that a non-AP HE STA uses to collect traffic information and construct TSPECs is beyond the scope of this specification.

An HE non-AP STA transmits an ADDTS Request with Schedule and APSD subfields set to 0 in the TSPEC to signal its traffic characteristics and QoS requirements to the associated HE AP. An HE AP does not transmit an ADDTS Response frame as a response to the ADDTS Request frame to a HE STA that transmitted ADDTS Request with Schedule and APSD subfields of the TSPEC set to 0 [#17048]. The acknowledgment(# 17029) of the ADDTS Request frame confirms the receipt of the TSPEC at the HE AP.

A non-AP HE STA should send a DELTS frame with the corresponding TSID if(#15357) the traffic associated with the TSID has been terminated. When receiving a DELTS from a non-AP HE STA, the HE AP shall consider the information provided in the TSPEC as no longer valid.