IEEE P802.11  
Wireless LANs

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | Proposed resolution for CIDs Related to Quiet Time Period | | | | | | Date: 2020-06-04 | | | | | | Author(s): | | | | | | Name | Affiliation | Address | Phone | email | | Kaiying Lu | Mediatek Inc. | 2840 Junction Ave. San Jose, CA | (408) 3872160 | [Kaiying.lu@mediatek.com](mailto:Kaiying.lu@mediatek.com) | |  |  |  |  |  | |  |  |  |  |  | |

Abstract

This submission proposes resolutions for comments related to TGax D6.0 subclause 26.17.5, B.4.33.1, C.3 and 9.4.2.1 with the following CIDs:

24016, 24158, 24159, 24160

Revisions:

Rev 0: Initial version of the document.

Rev 1: Changed comment resolution for CID 24158, 24159

Rev 2: Editorial changes of resolution for CID 24158

Rev 3: Solved the comments from Mark Rison

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.***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **commenter** | **Section** | **Pg / Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 24016 | Bims, Harry | 9.4.2.1 | 159.08 | The "Quiet Time Period Setup" is a subtype of the Quiet Time Period information element. This element ID refers to the information element, not one of its subtypes | Change "Quiet Time Period Setup" to  "Quiet Time Period" | **Accepted** |
| 24158 | Kandala, Srinivas | B.4.33.1 |  | QTP is an optional feature but does not have an entry in the PICS | Add QTP to the PICS under MAC HE Features | **Revised**  The current QTP entries in the PICS are not propoerly described.  Modified QTP entries in the PICS under HE MAC Features by adding “Responding AP procedure” and “Requesting STA procedure” sub-items with correct reference in subclause 26.17.5.1, 26.17.5.2, 26.17.5.3 respectively.  **TGax editor, please make changes as shown in 11-20/0851r3 CID 24158** |
| 24159 | Kandala, Srinivas | C.3 | 737.53 | Since QTP is optional it very likely will need an entry of its own in Dot11StationConfigEntry | Either provide justification why it is not needed or add dot11QTPOptionActivated to Dot11StationConfigEntry. Further, make necessary changes in 6.3.119 and 26.17.5 and subclauses within | **Revised**  Agree with the commenter in principle.  Since QTP is a “built-in” feature and can not be changed dynamically, it is an “Implemented” capability. Added dot11QTPOptionImplemented to Dot11StationConfigEntry.  **TGax editor, please make changes as shown in 11-20/0851r3 CID 24159** |
| 24160 | Kandala, Srinivas | 26.17.5 | 467.06 | QTP is a useful feature. However the usefulness will be lost if the Quiet Time is not fully enforced. | Replace "should" with "shall" | **Rejected**  The usage scenarios for QTP in 11ax are not fully identified. In the next generation 11be, with more usage scenarios identified, it will be more meaningful for QTP to be a mandatory feature. |

***TGax editor: modify the Table 9-94 in 9.4.2.1 as follows:***

**Table 9-94—Element IDs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Element | Element ID | Element ID  Extension | Extensible | Fragmentable |
| … |  |  |  |  |
| Quiet Time Period **(#24016)** (see 9.4.2.254 (Quiet Time Period element)) | 255 | 43 | Yes | No |
| … |  |  |  |  |

***TGax editor: modify the paragraph in 26.17.5.1 as follows:***

**26.17.5 Quiet HE STAs in an HE BSS**

**26.17.5.1 General**

Quiet time period (QTP) is an optional feature that defines a period of time (QTP period) that is intended to be used primarily for the exchange of specific frames between a STA requesting a QTP and its peers using peer-to-peer links. The particular frames to be exchanged using peer-to-peer links during the QTP period are identified by a service specific identifier. The determination of which frames are associated with the service specific identifier is beyond the scope of the standard. The method for selection of the service specific identifier by the peer-to-peer operation is beyond the scope of the standard.

An AP with dot11QTPOptionImplemented equal to true is a QTP AP and shall set the QTP Support field to 1 in HE Capabilities elements that it transmits and shall set the QTP Support field to 0 otherwise. A non-AP HE STA with dot11QTPOptionImplemented equal to true is a QTP non-AP STA and shall set the QTP Support field to 1 in HE Capabilities elements that it transmits and shall set the QTP Support field to 0 otherwise. **(#24159)**

A QTP non-AP STA may request its QTP AP to set up a QTP and if successful, the QTP AP informs other associated QTP non-AP STAs of the QTP and of the service specific identifier associated with that QTP.

The QTP mechanism informs other HE STAs of the period and the intended peer-to-peer operation, and requests that during the QTP, the QTP non-AP STAs should not exchange frames that are not associated with the service specific identifier.

A QTP non-AP STA may ignore the QTP. A QTP non-AP STA that decides to stay quiet during a QTP period suspends the decrementing of its backoff counters at the start time of the QTP period and resumes them when the QTP period ends.

NOTE— Otherwise, a STA that does not stay quiet does not suspend the decrementing of its backoff counters.

***TGax editor: Modify the item in the table in B.4.33.1 as follows:***

**B.4.33.1 HE MAC features**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Protocol capability | References | Status | Support |
| HEM11 | Quiet time period | 26.17.5 Quiet HE STAs in an HE BSS |  | Yes No N/A  |
| \*HEM11.1  HEM11.1.1  HEM11.1.2 | Responding AP Procedure  QTP AP capability  QTP responding AP procedure | 26.17.5.1 (General)  26.17.5.3 (Responding AP procedure ) | CFAP AND CFHE:O  HEM11.1:M  HEM11.1:M  **(#24158)** | Yes No N/A   Yes No N/A  |
| \*HEM11.2  HEM11.2.1  HEM11.2.2 | Requesting STA procedure  QTP non-AP STA capability  QTP requesting STA procedure | 26.17.5.1 (General)  26.17.5.2 (QTP Requesting STA procedure ) | CFSTAof AP AND CFHE:O  HEM11.2:M  HEM11.2:M  **(#24158)** | Yes No N/A   Yes No N/A  |

***TGax editor: Change Dot11StationConfigEntry as follows (not all lines shown):***

Dot11StationConfigEntry ::= SEQUENCE

{ dot11OCTOptionImplemented TruthValue,

dot11QTPOptionImplemented TruthValue, **(#24159)**

}

***TGax editor: Insert the following after the dot11*** ***OCTOptionImplemented OBJECT-TYPE element in the Dot11StationConfig TABLE:***

dot11QTPOptionImplemented OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This is a capability variable.

Its value is determined by device capabilities.

This attribute, when true, indicates that the QTP operation is implemented and operational. This attribute, when false or not present, indicates that the QTP operation is not implemented or not operational."

::= { dot11StationConfigEntry ANA} **(#24159)**

***TGax editor: Insert the following compliance object in the dot11HEComplianceGroup object:***

dot11HEComplianceGroup OBJECT-GROUP

OBJECTS {

…

dot11OCTOptionImplemented,

dot11QTPOptionImplemented,

…}

STATUS current

DESCRIPTION

"Attributes that configure the HE Group for IEEE 802.11."

::= { dot11Groups 100 }