IEEE P802.11
Wireless LANs

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| Proposed resolution for CIDs Related to Quiet Time Period |
| Date: 2019-11-11 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Kaiying Lu | Mediatek Inc. | 2840 Junction Ave. San Jose, CA | (408) 3872160 | Kaiying.lu@mediatek.com |
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Abstract

This submission proposes resolutions for comments related to TGax D5.0 subclause 26.17.5 and 9.4.2.254 with the following CIDs:

22059, 22269, 22270, 22101, 22102

Revisions:

Rev 0: Initial version of the document.

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** | **Section** | **Pg / Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 22059 | Kaiying Lv | 26.17.5 | 459/34 | There is no definitions for MLME-QTP primitives. | Add definitions for MLME-QTP primitives. | RevisedAgree with the commenter in principle. Add definitions in Clause 6 for MLME-QTP primitives.**TGax editor, please make changes as shown in 11-19/2048r0 CID 22059** |
| 22269 | Mark RISON | 26.17.5 |  | There are references to MLME-QTP primitives but no such primitives are defined in Clause 6 | Delete the referenced subclause, the QTP definition from 3.4, subclause 9.4.2.254. Change the QTPSupport field in Figure 9-787b--HE MAC Capabilities Information field format to Reserved and delete the corresponding row in Table 9-321a--Subfields of the HE MAC Capabilities Information field | RevisedAgree with the commenter in principle. Add definitions in Clause 6 for MLME-QTP primitives.**TGax editor, please make changes as shown in 11-19/2048r0 CID 22269** |
| 22270 | Mark RISON | 26.17.5 |  | There are references to MLME-QTP primitives but no such primitives are defined in Clause 6 | Add MLME-QTP.request/confirm/indication/response primitives to Clause 6 | RevisedAgree with the commenter in principle. Add definitions in Clause 6 for MLME-QTP primitives.**TGax editor, please make changes as shown in 11-19/2048r0 CID 22269** |
| 22101 | Liwen Chu | 9.4.2.254.4 | 209/29 | The offset in request is referred to TBTT, and the offset in response is referred to the PPDU carrying the response. It is better to have same reference, e.g. absolute TSF time. | As in comment | RevisedAgree with the commenter in principle. **TGax editor, please make changes as shown in 11-19/2048r0 CID 22101** |
| 22102 | Liwen Chu | 9.4.2.254.4 | 209/44 | Rewrite the paragraph such that the Service Specific Identifier field in response is copied from the Service Specific Identifier field in the related request. | As in comment | RevisedAgree with the commenter in principle. **TGax editor, please make changes as shown in 11-19/2048r0 CID 22102** |

***TGax editor: please add the following primitives in 6.3.119 (D5.0 page70/ line45) as follows:***

6.3.119 Quiet Time Period (#**22059, #22269, #22270**)

6.3.119.1 Introduction

This mechanism supports the operation of Quiet Time Period.

6.3.119.2 MLME-QTP.request

6.3.119.2.1 Function

This primitive requests a quiet time period for the Quiet Time Period operation.

6.3.119.2.2 Semantics of the service primitive

The primitive parameters are as follows:

MLME-QTP.request (

Peer MAC Address,

Dialog Token,

Quiet Period Offset,

Quiet Period Duration,

Quiet Period Interval,

Repetition Count,

Service Specific Identifier

)

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| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| Peer MAC Address  | MAC address | Any valid individualaddressed MAC Address | The address of the peer MAC entity to which the QTP Request frame is to be sent |
| Dialog Token | Integer | 0-65 535 | The dialog token to identify the QTP Request frame. |
| Quiet Period Offset | Integer | 0-255 | Indicates the offset of the first QTP period from the TBTT, expressed inTUs. |
| Quiet Period Duration | Integer | 1-65 535 | Indicates the duration of the QTP in units of 32 μs |
| Quiet Period Interval | Integer | 1-255 | Indicates the requested interval between the start of two consecutive QTP periods, expressed in TUs. |
| Repetition Count | Integer | 0-255 | Indicates the number of requested QTP periods. A repetition count equal to 0 indicates the setup time of the QTP period is for a one time operation. Repetition count equal to 0xFF indicates the setup of the QTP period is canceled. |
| Service Specific Identifier | Integer | 0-65 535 | Indicates an identifier assigned by a peer-to-peer application to identify frame exchanges using peer-to-peer links |

6.3.119.2.3 When generated

This primitive is generated by the SME to request that a QTP Request frame to be sent to its associated AP.

6.3.119.2.4 Effect of receipt

On receipt of this primitive, the MLME constructs and transmits a QTP Request frame.

6.3.119.3 MLME-QTP.indicaton

6.3.119.3.1 Function

This primitive indicates that a QTP Request frame has been received for the Quiet Time Period operation.

6.3.119.3.2 Semantics of the service primitive

The primitive parameters are as follows:

MLME-QTP.indication (

Peer MAC Address,

Dialog Token,

Status Code

Quiet Period Offset,

Quiet Period Duration,

Quiet Period Interval,

Repetition Count,

Service Specific Identifier

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| Peer MAC Address  | MAC address | Any valid individualaddressed MAC Address | The address of the peer MAC entity from which the QTP request frame is received |
| Dialog Token | Integer | 0-255 | The dialog token to identify the QTP Request frame. |
| Quiet Period Offset | Integer | 0-255 | Indicates the offset of the first QTP period from the TBTT, expressed inTUs. |
| Quiet Period Duration | Integer | 1-65 535 | Indicates the duration of the QTP in units of 32 μs |
| Quiet Period Interval | Integer | 1-255 | Indicates the requested interval between the start of two consecutive QTP periods, expressed in TUs. |
| Repetition Count | Integer | 0-255 | Indicates the number of requested QTP periods. A repetition count equal to 0 indicates the setup time of the QTP period is for a one time operation. Repetition count equal to 0xFF indicates the setup of the QTP period is canceled. |
| Service Specific Identifier | Integer | 0-65 535 | Indicates an identifier assigned by a peer-to-peer application to identify frame exchanges using peer-to-peer links |

6.3.119.3.3 When generated

This primitive is generated by the MLME when a QTP Request frame is received.

6.3.119.3.4 Effect of receipt

On receipt of this primitive, the SME constructs and transmits a QTP Response frame.

6.3.119.4 MLME-QTP.response

6.3.119.4.1 Function

This primitive requests the transmission of quiet time period information to a peer entity, in response to a QTP Request frame for the Quiet Time Period operation.

6.3.119.4.2 Semantics of the service primitive

The primitive parameters are as follows:

MLME-QTP.response (

Peer MAC Address,

Dialog Token,

Status Code

Quiet Period Offset,

Quiet Period Duration,

Quiet Period Interval,

Repetition Count,

Service Specific Identifier

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| Peer MAC Address  | MAC address | Any valid individualaddressed MAC Address | The address of the peer MAC entity from which the QTP response frame is to be sent |
| Dialog Token | Integer | 0-255 | The dialog token to identify the QTP Response frame. |
| Status Code | Integer | 0-255 | Indicates the status of a requested operation. |
| Quiet Period Offset | Integer | 1-255 | Indicates the offset of the first QTP period from the TBTT, expressed in TUs. |
| Quiet Period Duration | Integer | 1-65 535 | Indicates the duration of the QTP in units of 32 μs |
| Quiet Period Interval | Integer | 1-255 | Indicates the responded interval between the start of two consecutive QTP periods, expressed in TUs. |
| Repetition Count | Integer | 0-255 | Indicates the number of responded QTP periods. A repetition count equal to 0 indicates the setup time of the QTP period is for a one time operation. Repetition count equal to 0xFF indicates the setup of the QTP period is canceled. |
| Service Specific Identifier | Integer | 0-65 535 | Indicates an identifier assigned by a peer-to-peer application to identify frame exchanges using peer-to-peer links |

6.3.119.4.3 When generated

This primitive is generated by the SME to request that a QTP Response frame be sent to a peer entity as a response to an MLME-QTP.indication primitive.

6.3.119.4.4 Effect of receipt

On receipt of this primitive, the SME constructs and transmits a QTP Respond frame.

6.3.119.5 MLME-QTP.confirm

6.3.119.45.1 Function

This primitive reports the result of a QTP request to send a QTP Response frame for the Quiet Time Period operation.

6.3.119.5.2 Semantics of the service primitive

The primitive parameters are as follows:

MLME-QTP.confirm (

Quiet Period Duration,

Service Specific Identifier

)

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| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| Peer MAC Address  | MAC address | Any valid individualaddressed MAC Address | The address of the peer MAC entity from which the QTP response frame is received |
| Dialog Token | Integer | 0-255 | The dialog token to identify the QTP Request frame. |
| Status Code | Integer | 0-255 | Indicates the status of a requested operation. |
| Quiet Period Offset | Integer | 1-255 | Indicates the offset of the first QTP period from the TBTT, expressed in TUs. |
| Quiet Period Duration | Integer | 1-65 535 | Indicates the duration of the QTP in units of 32 μs |
| Quiet Period Interval | Integer | 1-255 | Indicates the responded interval between the start of two consecutive QTP periods, expressed in TUs. |
| Repetition Count | Integer | 0-255 | Indicates the number of responded QTP periods. A repetition count equal to 0 indicates the setup time of the QTP period is for a one time operation. Repetition count equal to 0xFF indicates the setup of the QTP period is canceled. |
| Service Specific Identifier | Integer | 0-65 535 | Indicates an identifier assigned by a peer-to-peer application to identify frame exchanges using peer-to-peer links |

6.3.119.5.3 When generated

This primitive is generated by the MLME when the STA receives a QTP Response frame from the AP.

6.3.119.5.4 Effect of receipt

The SME is notified of the results of the QTP Request frame.

***TGax editor: please change the following paragraph in 9.4.2.254.2 (D5.0 page207/ line51) as follows:***

**9.4.2.254.2 Quiet Time Period Setup** (#**22059, #22269, #22270**)

|  |  |
| --- | --- |
| Quiet Period Duration | Service Specific Identifier |

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 **Figure 9-787w—Quiet Time Content subfield format in Quiet Time Period Setup subtype**

***TGax editor: please change the following paragraph in 9.4.2.254.3 (D5.0 page208/ line18) as follows:***

**9.4.2.254.3 Quiet Time Period Request** (#**22059, #22269, #22270**)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dialog Token | Quiet Period Offset | Quiet Period Duration | Quiet Period Interval | Repetition Count | Service Specific Identifier |

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 **Figure 9-787x—Quiet Time Content subfield format in Quiet Time Period Request subtype**

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The Service Specific Identifier field contains an identifier assigned by a peer-to-peer application to identify specific frame exchanges using peer-to-peer links during which HE STAs that have requested the participation of the specified frame exchanges might transmit frames during the quiet time period. (#22102)

***TGax editor: please change the following paragraph in 9.4.2.254.4 (D5.0 page208/ line63) as follows:***

**9.4.2.254.4 Quiet Time Period Response** (#**22059, #22269, #22270**)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Dialog Token | StatusCode | Quiet Period Offset | Quiet Period Duration | Quiet Period Interval | Repetition Count | Service Specific Identifier |

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 **Figure 9-787y—Quiet Time Content subfield format in Quiet Time Period Response subtype**

The Quiet Period Offset field is set to the offset of the first QTP period from the TBTT expressed in TUs. (#22101)