IEEE P802.11  
Wireless LANs

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| EIFS | | | | |
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|  |  |  |  |  |

Abstract

This submission proposes resolutions for multiple comments related to TGax D0.1 with the following CIDs (4 CIDs):

* 162, 2444, 2443, 2623

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.***

# PARS I (EIFS)

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| --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 162 | Alfred Asterjadhi | 1298.01 | EIFS rules need to be updated for HE PPDUs since the TXOP duration is included in the SIG-A. Easy fix EIFS = DIFS if received HE PPDU. | As in comment. | Revised –  Agree in principle with the comment. Proposed resolution is inline with the suggested change (specifying that EIFS shall not be invoked if a valid TXOP\_DURATION that updates the NAV is present in the RXVECTOR parameter).  Also proposed resolution adds the TXOP Duration field in the TXVECTOR/RXVECTOR table.  TGax editor to make the changes shown in 11-16/0835r0 under all headings that include CID 162. |
| 2444 | Yongho Seok | 39.44 | The HE AP may receive one or more A-MPDU(s) that are carried in the HE trigger-based PPDU. In that case, even though all A-MPDU sub-frames in one A-MPDU is not received correctly, the HE AP shall not invoke the EIFS if at least one frame in other A-MPDU is correctly received. Accordingly, change the last paragraph of the sub-clause 10.3.2.3.7 as the following: "EIFS shall not be invoked if the NAV is updated by the frame that would have caused an EIFS, such as when the FCS fails and the L-SIG TXOP function employs L-SIG information to update the NAV. EIFS shall not be invoked for a PPDU that contains one or more A-MPDU(s) if one or more of its frames of at least one A-MPDU in the PPDU are received correctly." | As per comment | Revised –  Agree in principle with the comment. Proposed resolution is inline with the suggested change (specifying that EIFS shall not be invoked if a valid TXOP\_DURATION that updates the NAV is present in the RXVECTOR).  Also proposed resolution adds the TXOP Duration field in the TXVECTOR/RXVECTOR table.  TGax editor to make the changes shown in 11-16/0835r0 under all headings that include CID 2444. |
| 2443 | Yongho Seok | 39.44 | Because the HE STA can update the NAV from the HE-SIG-A field in the received HE PPDU, it shall not invoke the EIFS when it receives a valid HE-SIG-A in the HE PPDU. Change the last paragraph of the sub-clause 10.3.2.3.7 as the following: "EIFS shall not be invoked if the NAV is updated by the frame that would have caused an EIFS, such as when the FCS fails and the L-SIG TXOP function employs L-SIG information to update the NAV. EIFS shall not be invoked for an A-MPDU if one or more of its frames are received correctly. EIFS shall not invoked if a valid TXOP duration value in HE-SIG-A field of a HE PPDU is identified." | As per comment | Revised –  Agree in principle with the comment. Proposed resolution is inline with the suggested change (specifying that EIFS shall not be invoked if a valid TXOP\_DURATION that updates the NAV is present in the RXVECTOR).  Also proposed resolution adds the TXOP Duration field in the TXVECTOR/RXVECTOR table.  TGax editor to make the changes shown in 11-16/0835r0 under all headings that include CID 2443. |
| 2623 | Young Hoon Kwon | 53.33 | When a STA correctly receives a valid HE-SIG-A in a HE PPDU and identifies TXOP Duration field in the HE-SIG-A, the STA has identified valid TXOP Duration information even in case the STA fails to decode the payload of the PPDU. Therefore, in case the STA fails to decode the payload, additional waiting for EIFS time does not protect possible response frame at all because TXOP Duration field in the HE-SIG-A already indicated similar information. In current spec., it is written as "EIFS shall not be invoked if the NAV is updated by the frame that would have caused an EIFS." However, in case of TXOP Duration value in HE-SIG-A field, it is not needed the NAV to be updated for EIFS not being invoked. For this end, extending current spec. text is necessary. | Modify the final paragraph of 10.3.2.3.7 EIFS sub-clause (in REVmc\_D5.2) to "EIFS shall not be invoked if valid TXOP Duration value is identified by the frame that would have caused an EIFS, such as when the FCS fails and the L-SIG TXOP function employs L-SIG information to update the NAV, or valid TXOP Duration value in the HE-SIG-A field of an HE PPDU is identified and the FCS of the payload of the HE PPDU fails. EIFS shall not be invoked for an A-MPDU if one or more of its frames are received correctly.". | Revised –  Agree in principle with the comment. Proposed resolution is inline with the suggested change (specifying that EIFS shall not be invoked if a valid TXOP\_DURATION that updates the NAV is present in the RXVECTOR).  Also proposed resolution adds the TXOP Duration field in the TXVECTOR/RXVECTOR table.  TGax editor to make the changes shown in 11-16/0835r0 under all headings that include CID 2623. |

**Discussion:** *None.*

**10.3.2.3.7 EIFS**

**TGax Editor: *Insert the following sentence at the end of this paragraph (#CID 162, 2444, 2443, 2623):***

EIFS shall not be invoked if the NAV is updated by the frame that would have caused an EIFS, such as when the FCS fails and the L-SIG TXOP function employs L-SIG information to update the NAV. EIFS shall not be invoked for an A-MPDU if one or more of its frames are received correctly. EIFS shall not be invoked if a valid TXOP\_DURATION parameter is present in the RXVECTOR of a received HE PPDU.

**TGax Editor: *Insert the following row (ignoring the header row) in Table 26-1 (#CID 162, 2444, 2443, 2623):***

Table 26‑1 - TXVECTOR and RXVECTOR parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | Condition | Value | TXVECTOR | RXVECTOR |
| TXOP\_DURATION | FORMAT is HE\_SU, HE\_MU, HE\_EXT\_SU or HE\_TRIG | Indicates a duration of time that is used to update the NAV for this TXOP (see 25.2.1 (Updating two NAVs)), except for a value of 127 which indicates an invalid value of TXOP duration in SIG-A. | Y | Y |