### IEEE P802.11 Wireless LANs

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| 11ax D0.3 Spec Texts: Spatial Reuse Indication for Trigger | | | | |
| Date: 2016-08-29 | | | | |
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Abstract

This submission proposes spec texts for motion passed in 16/647

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Editorial revision based on the comment from Rojan

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 D0.3 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGax D0.3 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.***

**Discussion:**

In 16/647, the following motion texts has been added to SR Motion 1.

* + If the SR field in the HE-SIG-A of the HE SU PPDU or HE extended range SU PPDU is set to a TBD value, the medium condition for the STA shall indicate BUSY for the duration of the HE SU PPDU or HE extended range SU PPDU. Note that the TBD value of the SR field in the HE-SIG-A of the HE SU PPDU or HE extended range SU PPDU can be set when trigger frame is carried in the HE SU PPDU or HE extended range SU PPDU or under other TBD conditions.
  + If the SR field in the HE-SIG-A of the HE MU PPDU is set to a TBD value, the spatial reuse transmission in the HE MU PPDU is limited to within the duration of the HE MU PPDU. Note that the TBD value of the SR field in the HE-SIG-A of the HE MU PPDU can be set when trigger frame is carried in the HE MU PPDU or under other TBD conditions.

Propose spec texts for these two motions.

**Propose:**

***TGax editor: Add the underlined texts on page 90 line 7 in 25.9.2 (Color code based CCA rules) as the following:***

[Start Existing texts]

An HE STA(#2331) should regard an inter-BSS PPDU with a valid PHY header and that has receiving  
power/RSSI below the OBSS PD level used by the receiving STA and that meets additional TBD conditions,  
as not having been received at all (e.g., should not update its NAV), except that the medium condition shall  
indicate BUSY during the period of time that is taken by the receiving STA to validate that the PPDU is  
inter-BSS(#1580), but not longer than the time indicated as the length of the PPDU payload.

[End Existing texts]

If the inter-BSS PPDU is regarded as not having been received at all, the inter-BSS PPDU is HE SU PPDU or HE extended range SU PPDU, and the RXVECTOR parameter SPATIAL\_REUSE of the HE SU PPDU or HE extended range SU PPDU is set to SR\_Delay entry, the medium condition for the STA shall indicate BUSY for the duration of the HE SU PPDU or HE extended range SU PPDU.

If the inter-BSS PPDU is regarded as not having been received at all, the inter-BSS PPDU is HE MU PPDU, the RXVECTOR parameter SPATIAL\_REUSE of the HE MU PPDU is set to SR\_Restricted entry, and a TXOP for spatial reuse transmission is initiated within the duration of the HE MU PPDU, then the TXOP shall be limited to within the duration of the HE MU PPDU.

**TGax Editor: Insert the following subclause, 25.11a, after 25.11**

**25.11a TXVECTOR parameters SPATIAL\_REUSE for** **an HE PPDU**

Spatial Reuse field is carried in the TXVECTOR parameter SPATIAL\_REUSE of an HE PPDU and indicates spatial reuse information (See 25.9.2 (Color code based CCA rules)).

A STA that transmits an HE SU PPDU or HE extended range SU PPDU may set the TXVECTOR parameter SPATIAL\_REUSE to SR\_Delay entry if a Trigger frame is carried in the HE SU PPDU or HE extended range SU PPDU.

A STA that transmits an HE MU PPDU may set the TXVECTOR parameter SPATIAL\_REUSE to SR\_Restricted entry if a Trigger frame is carried in the HE MU PPDU.

***TGax editor: Add the underlined texts in Table 26-1—TXVECTOR and RXVECTOR parameters***

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| --- | --- | --- | --- | --- |
| Parameter | Condition | Value | TXVECTOR | RXVECTOR |
| SPATIAL\_REUSE | FORMAT is HE\_SU or HE\_MU or HE\_EXT\_SU or HE\_TRIG. | See 25.11a (TXVECTOR parameters SPATIAL\_REUSE for an HE PPDU) for setting rule. | Y | Y |
| Otherwise | Not present | N | N |

***TGax editor: Add the underlined texts of Spatial Reuse field in Table 26-15 and 26-16 in P146 26.3.9.7.2***

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| Table 26 15 - Fields in the HE-SIG-A for an HE SU PPDU and HE extended range SU PPDU | | | | | | | | | |
| Bit | Field | | | Number of bits | Description | | |
| TBD | Spatial Reuse | | | TBD | Set to SR\_Delay Entry to delay the starting time of spatial reuse transmission (see 25.9.2 (Color code based CCA rules) and 25.11a (TXVECTOR parameters SPATIAL\_REUSE for an HE PPDU)). | | |
| Table 26 16 - Fields in the HE-SIG-A for a HE MU PPDU | | | | | | | | | |
| Two Parts of HE-SIG-A | | | Bit | Field | | | Number of bits | Description | |
|  | | | TBD | Spatial Reuse | | | TBD | Set to SR\_Restricted Entry to restrict the spatial reuse transmission (see 25.9.2 (Color code based CCA rules) and 25.11a (TXVECTOR parameters SPATIAL\_REUSE for an HE PPDU)). | |