IEEE P802.11
Wireless LANs

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| Comment resolution on VHT SR |
| Date: 2016-07-24 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Jeongki Kim | LG Electronics |  |  | jeongki.kim@lge.com |
| YoungHoon Kwon | Newracom |  |  |  |
| James Wang | Mediatek, Inc. |  |  |  |
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Abstract

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

* 705, 2437, 2436, 2439, 2440

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.***

# VHT SR

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| --- | --- | --- | --- | --- |
| **CID** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 705 | 63.56 | The condition "When the color code based CCA rule is used" is limited and should be modified. The condition indicates how an OBSS PPDU is identified. There are multiple ways an STA can determine whether a detected frame is an inter-BSS or an intra-BSS frame by using BSS color or MAC address in the MAC header or AID (refer to AID assignment SFD132r16 P38L39). | Please generalize the condition "When the color code based CCA rule is used" as stated. | **REVISED** **Agree in principle with the commenter.****Partial AID in VHT PPDU can be used to determine whether a detected frame is an inter-BSS or an intra-BSS frame.****VHT related texts needs to be included in the subclause about Intra/Inter-BSS detection.****See the proposed text in 16/0879r2.** |
| 2437 | 63.32 | Because the Downlink VHT PPDU can be detected as an intra-BSS by using the Partial AID.Similarly, the Uplink VHT PPDU can be detected as an intra-BSS by using the Partial BSSID in VHT-SIG-A.Add the following condition:"The RXVECTOR parameter PARTIAL\_AID in the detected VHT PPDU that has the RXVECTOR parameter GROUP\_ID equal to 0 is same as the BSSID[39:47] of its associated AP" | As per comment | **REVISED****Agree in principle with the commenter.****Partial AID in VHT UL PPDU (GID =0) is Partial BSS ID and it can be used to determine whether a detected frame is an inter-BSS or an intra-BSS frame.****See the proposed text in 16/0879r2.** |
| 2436 | 63.32 | As specified in 802.11ax Spec Framework, the VHT PPDU can be also detected as an intra-BSS.Add the following condition:"The RXVECTOR parameter PARTIAL\_BSS\_COLOR in the detected VHT PPDU that has the RXVECTOR parameter GROUP\_ID equal to 63 is same as the Partial BSS color announced by its associated AP"Define a new RXVECTOR parameter PARTIAL\_BSS\_COLOR in Table 21-1. | As per comment | **REVISED** **Agree in principle with the commenter.****AID Assignment rule using Partial BSS Color bits was agreed in 11ax SFD. i.e., Partial BSS Color can be embedded in AID. The partial BSS Color can be used in VHT DL PPDU to distinguish whether the received VHT DL PPDU is Intra-BSS or Inter-BSS only when partial BSS Color AID** **assignment rule is used.** **In this case, if PARTIAL\_AID [8-N+1:8] is same as Partial BSS Color assigned by AP, the STA assumes that the frame is Intra-BSS frame.****See the proposed text in 16/0879r2.** |
| 2439 | 63.41 | Because the condition for detecting an inter-BSS is not an exclusive one from the intra-BSS condition, it shoud be specified.Add the following condition for detecting an inter-BSS:The detected frame is inter-BSS frame if one of the following conditions is true:The RXVECTOR parameter BSS\_COLOR in the detected HE PPDU is different as the BSS color announced by its associated AP,The RXVECTOR parameter PARTIAL\_AID in the detected VHT PPDU that has the RXVECTOR parameter GROUP\_ID equal to 0 is different as the BSSID[39:47] of its associated AP,The RXVECTOR parameter PARTIAL\_BSS\_COLOR in the detected VHT PPDU that has the RXVECTOR parameter GROUP\_ID equal to 63 is different as the Partial BSS color announced by its associated AP. | As per comment | **REVISED** **Agree in principle with the commenter.****When partial BSS Color AID** **assignment rule is used, if PARTIAL\_AID [8-N+1:8] is not same as Partial BSS Color assigned by AP, the frame is Inter-BSS frame.****Inter-BSS PPDU detection for VHT DL PPDU should be enabled only when partial BSS Color AID assignment rule is used.****In VHT UL PPDU, the Partail AID is not same as the BSSID [39:47] of its AP, then the received PPDU is Inter-BSS frame.****See the proposed text in 16/0879r2.** |
| 2440 | 63.41 | Because the condition for detecting an inter-BSS is not an exclusive one from the intra-BSS condition, it shoud be specified.Especially, the HE AP can detect a VHT and an HE MU PPDU as an inter-BSS.Add the following condition for detecting an inter-BSS:The detected frame is inter-BSS frame if one of the following conditions is true:...The HE AP receives a VHT MU PPDU or an HE DL MU PPDU. | As per comment | **REVISED****Agree in principle with the commenter.**If HE AP receives a VHT MU PPDU or an HE DL MU PPDU, the received PPDU is inter-BSS frame.**See the proposed text in 16/0879r2.** |

**Discussion:**

**None**

**TGax Editor: *Change the subclause 25.5.1 as follows:***

**25.2 Channel Access**

**25.2.1 Intra-BSS and inter-BSS frame detection ~~Updating two NAVs~~**

**…**

A received frame by the STA is an intra-BSS frame if one of the following conditions is true:

…

* The RXVECTOR parameter PARTIAL\_AID in the received VHT PPDU with the RXVECTOR parameter GROUP\_ID equal to 0 is the same as the BSSID[39:47] of the AP to which the STA is associated(#2437)
* The value of RXVECTOR parameter PARTIAL\_AID [8-N+1:8] in the received VHT PPDU with the RXVECTOR parameter GROUP\_ID equal to 63 is the same as the Partial BSS Color announced by the AP to which the STA is associated when the value (N) of the Partial BSS Color Length field in the most recently received HE Operation element is not equal to 0. (# 705, 2436)

A received frame by the STA is an inter-BSS frame if one of the following conditions is true:

…

* The RXVECTOR parameter PARTIAL\_AID in the received VHT PPDU frame with the RXVECTOR parameter GROUP\_ID equal to 0 is different from the BSSID[39:47] of the AP to which the STA is associated (#2439)
* The value of RXVECTOR parameter PARTIAL\_AID [8-N+1:8] in the received VHT PPDU with the RXVECTOR parameter GROUP\_ID equal to 63 is different from the Partial BSS Color announced by the AP to which the STA is associated when the value (N) of the Partial BSS Color Length field in the most recently received HE Operation element is not equal to 0. (# 705, #2439)
* An HE AP receives either a VHT MU PPDU or an HE DL MU PPDU. (#2440)

**25.2.2 Updating two NAVs**