IEEE P802.11
Wireless LANs

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| LB202 CID3297 NSS support partitioning |
| Date: 2014-07-03 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Matthew Fischer | Broadcom | 190 Mathilda Place, Sunnyvale, CA 94086 | +1 408 543 3370 | mfischer@broadcom.com |
|  |  |  |  |  |

Abstract

This document proposes a resolution for CID 3297, CID 3298 of LB202, the comment on TGm Draft 3.0 suggesting the creation of additional partitioning of support indication for NSS values.

**REVISION NOTES:**

R0: initial

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 TGmc Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGmc Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGmc Editor: Editing instructions preceded by “Instruction to Editor” are instructions to the TGmc editor to modify existing material in the TGmc draft. As a result of adopting the changes, the TGmc editor will execute the instructions rather than copy them to the TGmc Draft.***

**CID LIST:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 3297 | Matthew Fischer | 1032.10 | 8.4.2.157.3 | The universally complete set of architectures of 80+80 receivers does not imply support for certain capabilities when operating in 160 MHz mode as is already suggested by the existence of the Highest Supported Long GI Data Rate fields. Some obvious combinations cannot currently be signaled. Also applies to TVHT (see, for example, 8.4.2.170) | Change the reserved field at bits 29-31 to become "Max NSS for 80+80 MHz" with the value in the field equal to nss supported for 80+80 MHz and a value of 0 to be used when 80+80 MHz is not supported. Change the reserved field at bits 61-63 to become "Max NSS for 160 MHz" with the value in the field equal to nss supported for 160 MHz and a value of 0 to be used when 160 MHz is not supported. Might also want to add a note saying that these values do not place an upper bound on the NSS supported for 20, 40, 80 MHz - those bounds are specified elsewhere. Note that similar changes should be executed for TVHT. | Revise - generally agree with commenter, TGmc editor to execute proposed changes from 11-14-0793r0 found under all headings which include CID3297 |
| 3298 | Matthew Fischer | 1032.10 | 8.4.2.157.3 | There is no text in this subclause to define the fields Rx Highest Supported Long GI Data Rate or Tx Highest Supported Long GI Data Rate. | Add a sentence or two indicating that the Rx Highest Supported Long GI Data Rate field and Tx Highest Supported Long GI Data Rate are defined in Table 8-251. | Revise - generally agree with commenter, TGmc editor to execute proposed changes from 11-14-0793r0 found under all headings which include CID3298 |

**Discussion:**

Implementations can benefit from subsets of functionality that have a finer resolution than the current capabilities fields allow.

**Proposed changes**

The proposed changes add a few new subfields to describe the partitioning of NSS support over a broader range of BW and MU/SU values than is currently describable.

**CID 3297, 3298, 3300**

***TGmc editor: modify Figure 8-554 Supported VHT-MCS and NSS Set field within subclause 8.4.2.157.3 Supported VHT-MCS and NSS Set field and some of the text in the subclause, as shown:***

**8.4.2.157.3 Supported VHT-MCS and NSS Set field**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | B0 B15 | B16 B28 | B29 B31 | B32 B47 | B48 B60 | B61 B63 |
|  | Rx VHT-MCS Map | Rx Highest Supported Long GI Data Rate | Max NSS for 80+80 MHz | Tx VHT-MCS Map | Tx Highest Supported Long GI Data Rate | Max NSS for 160 MHz |
| Bits: | 16 | 13 | 3 | 16 | 13 | 3 |

The Supported VHT-MCS and NSS Set field’s subfields are defined in Table 8-251 (Supported VHT-MCS and NSS Set subfields).

**8.4.2.158 VHT Operation element**

***TGmc editor: add two new rows to Table 8-251 Supported VHT-MCS and NSS Set subfields of the VHT Operation element within subclause 8.4.2.158 VHT Operation element as shown:***

**Table 8-251—Supported VHT-MCS and NSS Set subfields**

|  |  |  |
| --- | --- | --- |
| **Subfield** | **Definition** | **Encoding** |
| Max NSS for 80+80 MHz | This field defines the maximum NSS that is supported by the STA for 80+80 MHz operation without limiting the maximum NSS for operation at other bandwidth values. | Set to 0 if the maximum supported NSS for 80+80 MHz operation is 1 or if 80+80 MHz operation is not supported.Set to 1 if the maximum supported NSS for 80+80 MHz operation is 2.Set to 2 if the maximum supported NSS for 80+80 MHz operation is 3.Set to 3 if the maximum supported NSS for 80+80 MHz operation is 4.Set to 4 if the maximum supported NSS for 80+80 MHz operation is 5.Set to 5 if the maximum supported NSS for 80+80 MHz operation is 6.Set to 6 if the maximum supported NSS for 80+80 MHz operation is 7.Set to 7 if the maximum supported NSS for 80+80 MHz operation is 8. |
| Max NSS for 160 MHz | This field defines the maximum NSS that is supported by the STA for 160 MHz operation without limiting the maximum NSS for operation at other bandwidth values. | Set to 0 if the maximum supported NSS for 160 MHz operation is 1 or if 160 MHz operation is not supported.Set to 1 if the maximum supported NSS for 160 MHz operation is 2.Set to 2 if the maximum supported NSS for 160 MHz operation is 3.Set to 3 if the maximum supported NSS for 160 MHz operation is 4.Set to 4 if the maximum supported NSS for 160 MHz operation is 5.Set to 5 if the maximum supported NSS for 160 MHz operation is 6.Set to 6 if the maximum supported NSS for 160 MHz operation is 7.Set to 7 if the maximum supported NSS for 160 MHz operation is 8. |

**References:**