IEEE P802.11  
Wireless LANs

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| Text proposal for Beamformee STS Capabilities | | | | |
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|  |  |  |  |  |

Abstract

This document provides a text proposal to implement the changes proposed [1].

CID 166

# Introduction

Document [1] contains a proposal to modify the indication of the Beamformee STS Capability.

This document shows the text changes needed to implement that proposal.

# Text Changes

1. Modify the definition of Beamformee STS Capability subfield in Table 8-240 [2] (Subfields of the VHT Capabilities Info field) as follows:

**Table 8-240—Subfields of the VHT Capabilities Info field**

|  |  |  |
| --- | --- | --- |
| Beamformee STS Capability | The maximum number of space-time streams that the STA can receive in a VHT NDP~~, the maximum value for~~ *~~NSTS,total~~* ~~that can be sent to the STA in a VHT MU PPDU if the STA is MU beamformee capable,~~ and the maximum value of *Nr* that the STA transmits in a VHT Compressed Beamforming frame. | If SU beamformee capable, set to maximum number of space-time streams that the STA can receive in a VHT NDP minus 1.  Otherwise, reserved. |

1. Modify the definition of the Supported VHT-MCS and NSS Set field as follows (Figure 8-556 in [2]):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Rx VHT-MCS Map | Rx Highest Supported Long GI Data Rate | ~~Reserved~~  maximum value for *NSTS,total* | Tx VHT-MCS Map | Tx Highest Supported Long GI Data Rate | Reserved |
| 16 | 13 | 3 | 16 | 13 | 3 |

**Figure 8-556—Supported VHT-MCS and NSS Set field**

1. Modify Table 8-241 [2] (Supported VHT-MCS and NSS Set subfields) as follows:

**Table 8-241—Supported VHT-MCS and NSS Set subfields**

|  |  |  |
| --- | --- | --- |
| **Subfield** | **Definition** | **Encoding** |
| Rx VHT-MCS Map | Indicates the maximum value of the RXVECTOR parameter MCS of a PPDU that can be received at all channel widths supported by this STA for each number of spatial streams. | The format and encoding of this subfield are defined in Figure 8-401bs and the associated description |
| Rx Highest Supported Long GI Data Rate | Indicates the highest long GI VHT PPDU data rate that the STA is able to receive. | The largest integer value less than or equal to the highest long GI VHT PPDU data rate in Mb/s the STA is able to receive (see 9.7.11.1).  The value 0 indicates that this subfield does not specify the highest long GI VHT PPDU data rate that the STA is able to receive. |
| maximum value for *NSTS,total* | The maximum value for *NSTS,total* that can be sent to the STA in a VHT MU PPDU if the STA is MU beamformee capable | If not MU beamformee capable, set to 0.  If MU Beamformee capable and different from 0, indictates the maximum value for *NSTS,total*  minus 1 that can be sent to the STA in a VHT MU PPDU.  If MU Beamformee capable and equal to 0, this indicates that the maximum value for *NSTS,total* is equal to the value communicated in the Beamformee STS Capability subfield of the VHT capabilities Info field. |
| Tx VHT-MCS Map | Indicates the maximum value of the TXVECTOR parameter MCS of a PPDU that can be transmitted at all channel widths supported by this STA for each number of spatial streams. | The format and encoding of this subfield are defined in Figure 8-401bs and the associated description. |
| Tx Highest Supported Long GI Data Rate | Indicates the highest long GI VHT PPDU data rate that the STA is able to transmit at. | The largest integer value less than or equal to the highest long GI VHT PPDU data rate in Mb/s that the STA is able to transmit (see 9.7.11.2).  The value 0 indicates that this subfield does not specify the highest long GI VHT PPDU data rate that the STA is able to transmit. |

# References

[1] MU Beamformee capabilities indication in VHT, IEEE 802.11-15/xxxx

[2] IEEE P802.11-REVmc/D3.4, December 2014