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. In this case, the value shall be equal to or larger than the value communicated in the Beamformee STS Capability subfield of the VHT capabilities Info field.  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