IEEE P802.11
Wireless LANs

|  |
| --- |
| Spec Text on Beamformee Capabilities  |
| Date: 2016-07-25 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Hongyuan Zhang | Marvell |  |  |  |

Abstract

This submission contains spec text to be incorporated in P802.11ax D0.3 related to 11ax beamformee capabilities as discussed per 11/16-896r0.

***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 or insert 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.***

**TGax Editor: *Instruction:*** *change the paragraph in 9.4.1.62 in page 26 of D0.2.*

**9.4.1.62 HE Compressed Beamforming Report field**

The format of the HE Compressed Beamforming Report field is based on the VHT Compressed Beamform­ing Report field in 9.4.1.48 (VHT Compressed Beamforming Report field) except for the following modifi­cations.

The supported values for the tone grouping factor *Ng* shall be *Ng* = 4 and *Ng* = 16 for SU-MIMO, MU-MIMO and OFDMA. Here, the tone grouping factor *Ng* is defined with respect to data tones of the HE PPDU.

Other modification are TBD.

For HE beamformee, supporting $N\_{g}=16$ in the HE Compressed Beamforming Report field is optional for both SU-type and MU-type feedbacks The beamformer shall not request $N\_{g}=16$ in NDP announcement if the beamformee does not claim support for $N\_{g}=16$ in the HE capabilities field as in 9.4.2.213 (HE Capabilities Element).

For HE beamformee, supporting codebook size (4,2) in the HE Compressed Beamforming Report field is optional for SU-type feedback.The beamformer shall not request codebook size (4,2) in NDP announcement if the beamformee does not claim support for codebook size (4,2) in the HE capabilities field as in 9.4.2.213 (HE Capabilities Element).

For HE beamformee, supporting codebook size (7,5) in the HE Compressed Beamforming Report field is optional for MU-type feedback.The beamformer shall not request codebook size (7,5) in NDP announcement if the beamformee does not claim support for codebook size (7,5) in the HE capabilities field as in 9.4.2.213 (HE Capabilities Element).

**9.4.2.213 HE Capabilities element**

**TGax Editor: *Insert a 4 new fields, each of 1 bit in length, in the corresponding Figures in 9.4.2.213 HE Capabilities element of D0.2.***

Ng=16 Capable for SU-Type feedback

Ng=16 Capable for MU-Type feedback

Codebook size (4,2) Capable for SU-Type feedback

Codebook size (7,5) Capable for MU-Type feedback

**TGax Editor: *Insert the paragraphs below at the end of the subclause 9.4.2.213 HE Capabilities element of D0.2:***

The Ng=16 Capable for SU-Type feedback subfield indicates whether the beamformee is capable of feedback with tone grouping of 16 in the HE Compressed Beamforming Report field for a SU-type feedback. It is set to 1 to indicate Ng=16 capable, set to 0 otherwise.

The Ng=16 Capable for MU-Type feedback subfield indicates whether the beamformee is capable of feedback with tone grouping of 16 in the HE Compressed Beamforming Report field for a MU-type feedback. It is set to 1 to indicate Ng=16 capable, set to 0 otherwise.

The Codebook size (4,2) Capable for SU-Type feedback subfield indicates whether the beamformee is capable of feedback with codebook size (4,2) in the HE Compressed Beamforming Report field for a SU-type feedback. It is set to 1 to indicate codebook size (4,2) capable, set to 0 otherwise.

The Codebook size (7,5) Capable for MU-Type feedback subfield indicates whether the beamformee is capable of feedback with codebook size (7,5) in the HE Compressed Beamforming Report field for a SU-type feedback. It is set to 1 to indicate codebook size (7,5) capable, set to 0 otherwise.