­­IEEE P802.11
Wireless LANs

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| Draft Text for CTS\_DTS Control Trailer for SU-MIMO Channel Access  |
| Date: 2018-01-10 |
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Abstract

This submission proposes Draft Text to fix the CTS\_DTS control Trailer for SU-MIMO Channel Access and address CID 1897.

Revisions:

* Rev 0: Initial version of 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 TGay Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

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

*Changes to D1.0*

***TGay Editor: Please make the following change on Pg 266 line 22:***

**Table 51 —Control trailer definition when CT\_TYPE is CTS\_DTS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field**  | **Number of bits**  | **Start bit**  | **Description**  |
| Channel Aggregation  | 1  | 0  | See Table 36  |
| BW  | 8  | 1  | See Table 36  |
| Primary Channel Number  | 3  | 9  | See Table 36  |
| SISO/MIMO  | 1  | 12  | Set to 0 to indicate that the following transmission from this STA is performed in SISO. Set to 1 to indicate that the following transmission from this STA is performed in MIMO.  |
| SU/MU MIMO  | 1  | 13  | Set to 0 to indicate SU-MIMO, and set to 1 to indicate MU-MIMO. Reserved when SISO/MIMO field is set to 0.  |
| EDMG Group ID  | 8  | 14  | This field indicates the MU-MIMO group of STAs that will be involved in the following MU-MIMO transmission. Reserved when the SU/MU MIMO field is set to 0.  |
| TX Sector Combination Index | 6 | 22 | Indicates the TX sector combination (as defined in 9.4.2.253) and the corresponding RX AWVs to be used in the SU-MIMO transmission from the EDMG STA transmitting the CTS to the EDMG STA that transmitted the RTS. Reserved if the SISO/MIMO field is set to 0 or the SU/MU MIMO field is set to 1 or the CT is sent with a DMG DTS frame. |
| Reserved  | ~~106~~ 100 | ~~22~~ 28 | Set to 0 by the transmitter and ignored by the receiver.  |
| CTCS  | 16  | 128  | Contains the CRC-16 computed over the content of the control trailer. This field is computed as defined in section 20.3.7  |

***TGay Editor: Please make the following change on Pg 140 line 36:***

If it uses SU-MIMO for the transmission of the ~~reverse~~ opposite direction, i.e. from the EDMG STA receiving the Grant frame to the EDMG STA transmitting the Grant frame, or desires to announce the hybrid beamforming protocol in the ~~reverse~~ opposite direction, the SISO/MIMO field shall be set to 1 and the SU/MU MIMO field shall be set to 0. The control trailer also indicates the corresponding DMG antenna configuration for the upcoming SU-MIMO transmission in the ~~reverse~~ opposite direction. If the STA intends to use SISO for the transmission in the ~~reverse~~ opposite direction, the SISO/MIMO field shall be set to 0.

***TGay Editor: Please make the following change on Pg 161 line 17 :***

If it uses SU-MIMO for the transmission in the ~~reverse~~ opposite direction, i.e. from the EDMG STA receiving the RTS frame to the EDMG STA transmitting the RTS frame, or desires to announce the hybrid beamforming protocol in the opposite direction, the SISO/MIMO field shall be set to 1 and the SU/MU MIMO field shall be set to 0. The DMG CTS frame should be transmitted using all SU-MIMO sectors, with a small delay between each sector. The control trailer also indicates the corresponding DMG antenna configuration for the upcoming SU-MIMO transmission or hybrid beamforming in the ~~reverse~~ opposite direction. If it uses SISO for the transmission of the ~~reverse~~ opposite direction, the SISO/MIMO field shall be set to 0.

**References:**

1. **IEEE P802.11ayTM/D1.0.**