IEEE P802.11
Wireless LANs

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| EDMG Spatial Stream Feedback Draft Text |
| Date: 2017-10-27 |
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Abstract

Draft text for EDMG Spatial Stream Feedback

*Instruct the Editor to add a new subclause:*

10.39.4 EDMG spatial stream feedback

Stations may provide feeback on individual transmitted spatial streams by appending a Control Trailer (30.3.7) to SSW\_FEEDBACK, BLOCK\_ACK, or ACK frames. The per stream SNR and RSSI information in the control trailer is measured by the STA during the reception of the PPDU before the corresponding SS\_FEEDBACK, BLOCK ACK or ACK frame is transmitted.

Feedback information may be used for MCS selection or to trigger beamforming between STAs.

*Instruct the Editor to modify the following text to Table 26 in Section 30.2.2 of the 802.11ay draft:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CT\_TYPE |  | Indicates the content of the control trailer:Enumerated type:CTS\_DTSGRANT\_RTS\_CTS2selfSPRSSW\_FEEDBACKBLOCK\_ACKACK | Y | Y |

*Instruct the Editor to add the following text to Section 30.3.7 of the 802.11ay draft:*

1. * 1. Control trailer

*Modify the 3rd paragraph as shown (with updated Table numbers)*:

The format of the control trailer depends on the value of the TXVECTOR parameter CT\_TYPE. Table 42 defines the control trailer format when the CT\_TYPE parameter is equal to CTS\_DTS. Table 43 defines the control trailer format when the CT\_TYPE parameter is equal to GRANT\_RTS\_CTS2self. Table 44 defines the control trailer format when the CT\_TYPE parameter is equal to SPR. Table 51 defines the control trailer format when the CT\_TYPE parameter is equal to SSW\_FEEDBACK, BLOCK\_ACK, or ACK.

*Add the following table to the end of the section:*

1.
2. —Control trailer definition when CT\_TYPE is SS\_FEEDBACK, BLOCK\_ACK, or ACK

|  |  |  |  |
| --- | --- | --- | --- |
| **Field** | **Number of bits** | **Start bit** | **Description** |
| Number of reported Streams | 3 | 0 | 3 bit unsigned integer indicating total number of reported streams -1. This number should match the Number of SS field in the PHY header of the PPDU to which this control frame is responding.  |
| Stream 1 SNR | 4 | 3 | Range 0 to 30 dB in 2 dB steps |
| Stream 1 RSSI | 3 | 7 | Range -70 dBm to -42 dBm in 4 dB steps |
| Stream 2 SNR | 4 | 10 | Range 0 to 30 dB in 2 dB steps. If unused, these bits are reserved. |
| Stream 2 RSSI | 3 | 14 | Range -70 dBm to -42 dBm in 4 dB steps. If unused, these bits are reserved. |
| Stream 3 SNR | 4 | 17 | Range 0 to 30 dB in 2 dB steps. If unused, these bits are reserved.  |
| Stream 3 RSSI | 3 | 21 | Range -70 dBm to -42 dBm in 4 dB steps. If unused, these bits are reserved. |
| Stream 4 SNR | 4 | 24 | Range 0 to 30 dB in 2 dB steps. If unused, these bits are reserved. |
| Stream 4 RSSI | 3 | 28 | Range -70 dBm to -42 dBm in 4 dB steps. If unused, these bits are reserved. |
| Stream 5 SNR | 4 | 31 | Range 0 to 30 dB in 2 dB steps. If unused, these bits are reserved. |
| Stream 5 RSSI | 3 | 35 | Range -70 dBm to -42 dBm in 4 dB steps. If unused, these bits are reserved. |
| Stream 6 SNR | 4 | 38 | Range 0 to 30 dB in 2 dB steps. If unused, these bits are reserved. |
| Stream 6 RSSI | 3 | 42 | Range -70 dBm to -42 dBm in 4 dB steps. If unused, these bits are reserved. |
| Stream 7 SNR | 4 | 45 | Range 0 to 30 dB in 2 dB steps. If unused, these bits are reserved. |
| Stream 7 RSSI | 3 | 49 | Range -70 dBm to -42 dBm in 4 dB steps. If unused, these bits are reserved. |
| Stream 8 SNR | 4 | 52 | Range 0 to 30 dB in 2 dB steps. If unused, these bits are reserved. |
| Stream 8 RSSI | 3 | 56 | Range -70 dBm to -42 dBm in 4 dB steps. If unused, these bits are reserved. |
| Reserved | 68 | 59 | Set to 0 by the transmitter and ignored by the receiver. |
| CTCS | 16 | 127 | Contains the CRC-16 computed over the content of the control trailer. This field is computed as defined in section 20.3.7 |

**References:**