IEEE P802.11
Wireless LANs

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| SA Ballot Comment Resolution on CID 6160, 6209, 6212 |
| Date: 2020-02-03 |
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Abstract

This submission proposes resolution of the following comments on 11ay D5.0 submitted as part of the initial SA ballot.

- 3 CID: 6160, 6209, 6212

***CIDs regarding MIMO BF:***

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| **CID** | **Page.Line Number** | **Comment** | **Proposed Change** | **Resolution** |
| 6160 | 299.38 | The paragraph discribes the 3 subphases in Figure 10-94b. It states "Each subphase shall be separated by an MBIFS". The MBIFS is missing in Figure 10-94b. | Add MBIFS in Figure 10-94b to illustrate where the MBIFS aligns between the suphases. | Revised-When the reciprocal MIMO phase is performed in a TDD SP, each subphase may not be separated by an MBIFS. Therefore, it is proposed to remove this statement. |
| 6209 | 164.1 | For MU-MIMO BF traning, it is not clear the NTX in this table is referring to the 'Number of TX Antennas' each STA specified in the MIMO BF feedback, which could be different for different STAs, or the 'Number of concurrent RF chains' in the AP's PHY Capabilities.Furthermore, for MU MIMO BF training there is no MIMO BF feedback indicating number of TX antennas | Specify NTX corresponds to the 'Number of concurrent RF chains' in the AP's PHY Capabilities | Revised-Agreed with the commenter that NTX is not clearly defined in the MIMO Selection Control element. In oder for MIMO Selection Control element to be self-containable, it is proposed to insert a new field “Number of TX Antennas” into this element. This field describes the NTX used in each MU-MIMO transmission configuration. |
| 6212 | 307.11 | "The EDMG group ID corresponding to the MU group shall be indicated in the EDMG Group ID field"Is the EDMG group ID in the MIMO Selection Control element the one newly assigned in the EDMG group ID set element, or the group ID used in setup?If it is the newly assigned one, then there could be potentially multiple MIMO selection Control elements in one MIMO BF selection frame.If a STA is assigned a new group ID in MIMO BF selection frame, does it mean the STA no longer has the membership of an old group ID? | Clarifiy the EDMG Group ID and Group User mask in the MIMO selection control element corresponds to to the newly assigned group ID in the EDMG Group ID Set element later in the frame.In Table 9-487e, specify one or more MIMO Selection Control element | Rejected-The EDMG group ID in the MIMO Selection Control element is the group ID used in MU-MIMO BF setup. The EDMG group ID set element in the MIMO BF Selection frame intends to be used to update member list in the group corresponding to the EDMG group ID in the MIMO Selection Control element after MU-MIMO BF training is completed. As a result, suggested clarification is not necessary. |

**Proposed changes to D5.0:**

**TGay editor: change the paragragh (P299L37) as follows (CID 6160):**

The reciprocal MIMO phase is shown in Figure 10-94b and consists of three subphases: an SU-MIMO BF setup subphase, an initiator SMBT subphase and an SU-MIMO BF feedback subphase.

**TGay editor: change the table 9-321u (P164L1) as follows (CID 6209):**

**Table 9-321u – MIMO Selection Control element format**

|  |
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|  |

|  |  |  |
| --- | --- | --- |
| **Field** | **Size (bits)** | **Meaning** |
| Element ID | 8 |  |
| Length | 8 |  |
| … |  |  |
| MU-MIMO Transmission Configuration Type | 1 | This field is set to 0 to indicate the MU-MIMO transmission configurations obtained from the nonreciprocal MU-MIMO BF training. This field is set to 1 to indicate the MU-MIMO transmission configurations obtained from the reciprocal MU-MIMO BF training. |
| Number of TX Antennas | 3 | Indicates the NTX used in each MU-MIMO transmission configuration. |
| … |  |  |