IEEE P802.11
Wireless LANs

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| LB-231-Partial-SLS-Comment-Resolution |
| Date: 2018-01-30 |
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Abstract

This document proposes resolution to LB231 Partial SLS related CIDs: 1165

1496

1682

1803

2179

2339

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| --- | --- | --- | --- | --- | --- | --- |
| 1165 | 206.31 |  |  |  | The editor's note states that this para is incomplete, and I have to trust the editor's opinion. | Make it completerer. |
| 1496 | 206.17 | 11.29.1 |  |  | "Moreover, if the responder and the initiator are EDMG STAs, the responder has more than one receive DMG antenna, the responder has successfully exchanged an EDMG Partial Sector Level Sweep element with the initiator, and the time indicated in the Time to Switch to Full Sweep field within the EDMG Partial Sector Level Sweep element has not passed following the expiration of the dot11BeamLinkMaintenanceTime, then the responder shall switch its receive DMG antennas from one to the next at a rate corresponding to the number of sectors indicated in the Partial Number of Sectors field of the initiator's EDMG Partial Sector Level Sweep element." This sentence is impossible to understand. | Break this sentence up into pieces so it can be understood. Specifically address the following issues. Is it necessary for both initiator and responder to send an EDMG Partial Sector Level Sweep element? What is the start time for the Time to Switch to Full Sweep? Clarify how rate (something per unit time) can correspond to a number of sectors. |
| 1682 | 206.43 | 11.29.1 |  |  | Specification above is incomplete. Need to specify the which STA (initiator or responder) 43 the field applies. Also, there is incomplete specification of how the other fields in the element are used 44 and tie breaker rules | Specify the which STA (initiator or responder) 43 the field applies. Complete specification of how the other fields in the element are used 44 and tie breaker rules |
| 1803 | 206.27 | 11.29.1 |  |  | "... EDMG Partial Sector Level Sweep ..." Underline is missing under "Level". There are multiple instances of this error in this subclause. | Please put underline under "Level". |
| 2179 | 206.43 | 11.29.1 |  |  | Clause 11.29.1 is incomplete as noted in the draft to the editor. Need to review clause in detail correct tie breaker rules and other ambiguities. | Fix as commented. |
| 2339 | 206.43 | 11.39.1 |  |  | Please provide clarification per the Editor's Note | Please provide clarification to the paragraphs between line 15 through 42 inclusive per the Editor's Note in line 43. |

Proposed Resolution: Revise

***TGay Editor: Replace the text in P206L13-L42 with the follwoign text***

***Editor: Add the following subclause after 11.29.1***

**11.29.1.1 EDMG Partial SLS**

An initiator and responder that are EDMG STAs are partial SLS ready if:

1. Either the initiator, the responder, or both the initiator and the responder have more than one DMG antenna.

And,

1. The initiator and responder have successfully exchanged an EDMG Partial Sector Level Sweep element (10.38.6.4.1)

When the beam link maintenance timer expires on a link between an initiator and a responder that are partial SLS ready:

1. The responder shall configure its receive DMG antenna to a quasi-omni pattern and switch its receive DMG antennas at a rate of once per a time interval equal to MBIFS plus the number of sectors indicated in the Partial Number of Sectors field of the last EDMG Partial Sector Level Sweep element received from the initiator multiplied by (TXTIME(SSW frame)+SBIFS).
2. The initiator shall initiate an ISS with the number of sectors indicated in the Partial Number of Sectors field of the last EDMG Partial Sector Level Sweep element it sent the responder. The initiator shall repeat this set of sectors one plus the number indicated in the Partial Number of RX Antennas field in the last EDMG Partial Sector Level Sweep element received from the responder.
3. When the initiator finishes the ISS, it shall configure its receive antennas to a quasi-omni pattern and switch its receive DMG antennas at a rate of once per a time interval equal to MBIFS plus the number of sectors indicated in the Partial Number of Sectors field of the last EDMG Partial Sector Level Sweep element received from the responder multiplied by (TXTIME(SSW frame)+SBIFS).
4. If the responder received at least one SSW frame from the initiator during step 1, it shall wait for the time indicated in the Duration field of that frame and initiate an RSS with the number of sectors indicated in the Partial Number of Sectors field of the last EDMG Partial Sectors Level Sweep element it has sent to the initiator. The responder shall repeat the RSS to each DMG antenna of the initiator according to the number indicated in the Partial Number of RX Antennas field in the last EDMG Partial Sectors Level Sweep element received from the initiator.

If the time indicated in the Time to Switch to Full Sweep field sent by the initiator to the responder in the last EDMG Partial Sectors Level Sweep element following the expiration of the dot11BeamLinkMaintenanceTime has passed and the initiator and responder have not completed a succsesfull SLS, the initiator and responder shall perform the following steps:

1. The responder shall configure its receive antenna to a quasi-omni pattern and switch its receive DMG antennas at a rate of once per a time interval equal to MBIFS plus the number of sectors indicated in the Total Number of Sectors field of the last EDMG Partial Sector Level Sweep element received from the initiator multiplied by (TXTIME(SSW frame)+SBIFS).
2. The initiator shall initiate an ISS with the number of sectors indicated in the Total Number of Sectors field of the last EDMG Partial Sector Level Sweep element sent to the responder. The initiator shall repeat the ISS for one plus the number indicated in the Total Number of RX Antennas field in the last EDMG Partial Sector Level Sweep element received from the responder.
3. When the initiator finishes the ISS, it shall configure its receive DMG antennas to a quasi-omni patterm and switch its receive DMG antennas at a rate of once per a time interval equal to MBIFS plus the number of sectors indicated in the Total Number of Sectors field of the last EDMG Partial Sector Level Sweep element received from the responder multiplied by (TXTIME(SSW frame)+SBIFS).
4. If the responder received at least one SSW frame from the initiator during step 5, it shall wait until the time indicated in the Duration field of that frame and initiate an RSS with the number of sectors indicated in the Partial Number of Sectors field of the last EDMG Partial Sector Level Sweep element it has sent to the initiator. The responder shall repeat this RSS for each DMG antenna of the initiator according to the number indicated in the Total Number of RX Antennas field in the last EDMG Partial Sector Level Sweep element received from the initiator.

If the initiator and responder agreed to change roles according to the procedure described in subclause 10.38.6.4.1, the initiator and responder in steps 1-8 shall become, respectively, the responder and initiator of the EDMG Partial Sector Level Sweep element exchange.

If the procedure in steps 1-8 does not complete before the end of the allocation (SP or TXOP) in which the procedure started is reached, the initiator and responder shall resume the procedure at step 5 at the next available allocation.

**References:**