IEEE P802.11
Wireless LANs

|  |
| --- |
| Proposed resolution to CID 179, 202, 219, 221, 297, 226, etc., on TGaj D1.0 in LB217 |
| Date: 2016-03-15 |
| Author(s):  |
| Name | Company | Address | Phone | Email |
| Jiamin Chen | Huawei/HiSilicon |  |  | Jiamin.chen@mail01.huawei.com |
|  |  |  |  |  |

 Abstract

This document proposes resolutions to 22 CIDs on TGaj D1.0: 179, 202, 219, 221, 297, 226, 264, 196, 197, 211, 212, 298, 194, 195, 208, 210, 223, 224, 231, 234, 240 and 253.

**Revision History**

R0: Initial version.

**Technical Comments**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Line | Type | Comment | Proposed Change | Remark |
| 179 | 6.3.116.4.~~3~~4 | 18 | 4 | T | "On receipt of this primitive, the MLME constructs and attempts to transmit a DCT Measurement Report frame."the MLME does not construct nor transmit the frame | Replace"On receipt of this primitive, the MLME constructs and attempts to transmit a DCT Measurement Report frame."with"On receipt of this primitive, the STA constructs and attempts to transmit a DCT Measurement Report frame." |  |
| 202 | 6.3.116.2.4 | 16 | ~~16~~51 | T | "On receipt of this primitive, the MLME constructs and attempts to transmit a DCT Measurement Request frame."The MLME does not construct nor transmits a frame. | Replace:"On receipt of this primitive, the MLME constructs and attempts to transmit a DCT Measurement Request frame."with"On receipt of this primitive, a DCT Measurement Request frame is constructed and transmitted by the STA." |  |
| 219 | 6.3.116.9.4 | 21 | 22 | T | "On receipt of this primitive, the MLME constructs and attempts to transmit a DCT Response frame"The STA in general constructs the frame, unlikely the MLME alone | Replace:"On receipt of this primitive, the MLME constructs and attempts to transmit a DCT Response frame"with"On receipt of this primitive, the STA constructs and attempts to transmit a DCT Response frame" |  |
| 221 | 6.3.116.6.4 | 19 | 23 | T | "On receipt of this primitive, the MLME constructs and attempts to transmit a DCT Request frame"The STA in general constructs the frame, unlikely the MLME alone | Replace:"On receipt of this primitive, the MLME constructs and attempts to transmit a DCT Request frame"with"On receipt of this primitive, the STA constructs and attempts to transmit a DCT Request frame" |  |
| 297 | 6.3.116.6.4 | 19 | 65 | T | "On receipt of this primitive, the MLME constructs and attempts to transmit a DCT Request frame"The STA in general constructs the frame, unlikely the MLME alone | Replace:"On receipt of this primitive, the MLME constructs and attempts to transmit a DCT Request frame"with"On receipt of this primitive, the STA constructs and attempts to transmit a DCT Request frame" |  |
| 226 | 6.3.116.3.4 | 17 | 28 | T | "On receipt of this primitive, the SME operates according to the procedure in 10.47 (DCT Procedure)."Is it only the SME that operates in the procedure in 10.47, or is it rather the STA in total? | Replace"On receipt of this primitive, the SME operates according to the procedure in 10.47 (DCT Procedure)."With "On receipt of this primitive, the STA operates according to the procedure in 10.47 (DCT Procedure)." |  |
| 264 | 6.3.116.5.4 | 18 | 46 | T | "On receipt of this primitive, the SME operates according to the procedure in 10.47 (DCT Procedure)."Is it only the SME that operates in the procedure in 10.47, or is it rather the STA in total? | Replace"On receipt of this primitive, the SME operates according to the procedure in 10.47 (DCT Procedure)."with"On receipt of this primitive, the STA operates according to the procedure in 10.47 (DCT Procedure)." |  |

Proposed resolution: **Revised.**

Subclause 6.3 (MLME SAP interface) specifies the services provided by the MLME to the SME. The SME uses the services provided by the MLME through the MLME SAP.

Therefore the MLME and the SME itself are the entities that transmit or receive a primitive. In general, the MAC sublayer constructs the MAC frame, while the PHY sublayer constructs the PHY PPDU.

On the other hand as mentioned in the comment, sometimes only MLME or SME alone could not perform the behavior defined in the spec. So propose to change the txt mentioned in the CIDs above respectively as follows:

CID179:

“**6.3.116.4.4 Effect on receipt**

On receipt of this primitive~~,~~ by the MLME, the MAC sublayer constructs and attempts to transmit a DCT Measurement Report frame. “

CID202:

“**6.3.116.2.4 Effect on receipt**

Once the MLME receives ~~receipt of~~ this primitive, the ~~MLME~~ the MAC sublayer constructs and attempts to transmit a DCT Measurement Request frame.”

CID219:

“**6.3.116.9.4 Effect on receipt**

Once the SME receives ~~receipt of~~ this primitive, the ~~SME~~STA operates according to the procedure defined in 10.47 (DCT Procedure). ”

CID221:

“**6.3.116.6.4 Effect on receipt**

Once the MLME receives ~~receipt of~~ this primitive, the ~~MLME~~ the MAC sublayer constructs and attempts to transmit a DCT Request frame.”

Similarly, change the sentence in P20L45 as follows:

“**6.3.116.8.4 Effect on receipt**

Once the MLME receives ~~receipt of~~ this primitive, the ~~MLME~~ the MAC sublayer constructs and attempts to transmit a DCT Response frame.”

CID297:

“**6.3.116.7.4 Effect on receipt**

Once the SME receives ~~receipt of~~ this primitive, the ~~SME~~STA operates according to the procedure defined in 10.47 (DCT Procedure).”

CID226:

“**6.3.116.3.4 Effect on receipt**

Once the SME receives ~~receipt of~~ this primitive, the ~~SME~~STA operates according to the procedure defined in 10.47 (DCT Procedure).”

CID264:

“**6.3.116.5.4 Effect on receipt**

Once the SME receives ~~receipt of~~ this primitive, the ~~SME~~STA operates according to the procedure defined in 10.47 (DCT Procedure).”

The effect of receipt of this primitive by the PHY entity is the generation of a PLME-CHARACTERISTICS.confirm primitive that conveys its operational characteristics.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Line | Type | Comment | Proposed Change | Remark |
| 196 | 3.2 | 3 | 13 | T | "synchronizing access point (AP) or personal basic service set (PBSS) control point (PCP): A CDMG AP or PCP that is operating on a 1.08 GHz channel but still transmitting its DMG Beacon frames on the relevant 2.16 GHz channel with the AP or PCP Role subfield of Dynamic Bandwidth Control element (8.4.2.173 (Dynamic Bandwidth Control element)) set to 0, and providing synchronization service to a synchronized AP or PCP on the relevant 2.16 GHz channel."Basically the definition as the structure: "A or B: <definition goes here>". So you have one definition text for two alternative terms (i.e. A and B). If both terms have the same definition, one of the terms can be replaced by the other and is not necessary to introduce. | Provide unambiguous definitions. |  |
| 197 | 3.2 | 3 | 13 | T | "synchronizing access point (AP) or personal basic service set (PBSS) control point (PCP): A CDMG AP or PCP that is operating on a 1.08 GHz channel but still transmitting its DMG Beacon frames on the relevant 2.16 GHz channel with the AP or PCP Role subfield of Dynamic Bandwidth Control element (8.4.2.173 (Dynamic Bandwidth Control element)) set to 0, and providing synchronization service to a synchronized AP or PCP on the relevant 2.16 GHz channel."The definition is exactly the same as the following one: "synchronizing access point (AP) or personal basic service set (PBSS) control point (PCP): A CDMG AP or PCP that is operating on a 1.08 GHz channel but still transmitting its DMG Beacon frames on the relevant 2.16 GHz channel with the AP or PCP Role subfield of Dynamic Bandwidth Control element (8.4.2.173 (Dynamic Bandwidth Control element)) set to 0, and providing synchronization service to a synchronized AP or PCP on the relevant 2.16 GHz channel." | Delete the definition of "synchronizing access point (AP) or personal basic service set (PBSS) control point (PCP" |  |
| 211 | 3.2 | 3 | 20 | T | "synchronized access point (AP) or personal basic service set (PBSS) control point (PCP): A CDMG AP or PCP that is operating on a 1.08 GHz channel but still transmitting its DMG Beacon frames on the relevant 2.16 GHz channel with the AP or PCP Role subfield of Dynamic Bandwidth Control element (8.4.2.173 (Dynamic Bandwidth Control element)) set to 1, and synchronizing with the synchronizing AP or PCP on the relevant 2.16 GHz channel."Basically the definition as the structure: "A or B: <definition goes here>". So you have one definition text for two alternative terms (i.e. A and B). If both terms have the same definition, one of the terms can be replaced by the other and is not necessary to introduce. | Provide unambiguous definitions. |  |
| 212 | 3.2 | 3 | 20 | T | "synchronizing access point (AP) or personal basic service set (PBSS) control point (PCP): A CDMG AP or PCP that is operating on a 1.08 GHz channel but still transmitting its DMG Beacon frames on the relevant 2.16 GHz channel with the AP or PCP Role subfield of Dynamic Bandwidth Control element (8.4.2.173 (Dynamic Bandwidth Control element)) set to 0, and providing synchronization service to a synchronized AP or PCP on the relevant 2.16 GHz channel."The definition of the terms is exactly the same as the following one, i.e. "synchronized access point (AP) or personal basic service set (PBSS) control point (PCP): A CDMG AP or PCP that is operating on a 1.08 GHz channel but still transmitting its DMG Beacon frames on the relevant 2.16 GHz channel with the AP or PCP Role subfield of Dynamic Bandwidth Control element (8.4.2.173 (Dynamic Bandwidth Control element)) set to 1, and synchronizing with the synchronizing AP or PCP on the relevant 2.16 GHz channel." | Delete the definition of "synchronized access point (AP) or personal basic service set (PBSS) control point (PCP):" |  |
| 298 | 3.2 | 3 |  | T | The draft introduces the following definition"A CDMG AP or PCP that is operating on a 1.08 GHz channel but still transmitting its DMG Beacon frames on the relevant 2.16 GHz channel with the AP or PCP Role subfield of Dynamic Bandwidth Control element (8.4.2.173 (Dynamic Bandwidth Control element)) set to 0, and providing synchronization service to a synchronized AP or PCP on the relevant 2.16 GHz channel"for 4 terms, i.e.: (1) synchronizing access point (AP), (2) personal basic service set (PBSS) control point (PCP), (3) synchronized access point (AP), (4) personal basic service set (PBSS) control point (PCP) | Provide unambiguous definitions. |  |

Proposed resolution: **Revised.**

The definitions of the two terms are different. The AP or PCP Role subfield of a synchronizing AP or synchronizing PCP is 0, while the AP or PCP Role subfield of a synchronized AP or synchronized PCP is 1.

The terms “PBSS personal basic service set (PBSS) control point (PCP)” and “personal basic service set (PBSS) control point (PCP)” were already defined in 11ad.

And in the light of that the two terms, “synchronized AP or PCP” and “synchronizing AP or PCP”, are only used once respectively in 11aj, proposed to remove them from subclause 3.2 (Definitions specific to IEEE 802.11) and insert the corresponding descriptions in 9.37a.2.1 where they are used as follows:

***Insert the following two paragraphs before the 13th paragraph of 9.37a.2.1:***

“A synchronized AP or PCP is a CDMG AP or PCP that is operating on a 1.08 GHz channel but still transmitting its DMG Beacon frames on the relevant 2.16 GHz channel with the AP or PCP Role subfield of Dynamic Bandwidth Control element (8.4.2.173 (Dynamic Bandwidth Control element)) set to 1, and synchronizing with the synchronizing AP or PCP on the relevant 2.16 GHz channel.

A synchronizing AP or PCP is a CDMG AP or PCP that is operating on a 1.08 GHz channel but still transmitting its DMG Beacon frames on the relevant 2.16 GHz channel with the AP or PCP Role subfield of Dynamic Bandwidth Control element (8.4.2.173 (Dynamic Bandwidth Control element)) set to 0, and providing synchronization service to a synchronized AP or PCP on the relevant 2.16 GHz channel.”

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Line | Type | Comment | Proposed Change | Remark |
| 194 | 3.2 | 2 | 13 | T | "China directional multi-gigabit small band beacon interval (CDMG SBBI): a value that represents the number of time units (TUs) between target beacon transmission times (TBTTs) on a 1.08 GHz channel for a CDMG STA that is operating on the 1.08 GHz channel." is unclear.TBTT describes a time interval and not a specific point in time. The specific point in time is only given once the TBTT is applied to the point in time at which the last beacon was transmitted. Hence specifying a point between TBTTs does not make sense.  | It is unclear from the definition what the intend of CDMG SBBI is. The TG is requested to verbatimly explain the intend to allow the commenter to provide a potential change OR to immediately change the definition to be more clear |  |
| 195 | 3.2 | 2 | 13 | T | It is unclear from the definition of CDMG SBBI, why the introduction of this additional acronym is required. Why can't a suitable value be set for the TBTT to accomplish the goal. | Delete the definition of CDMG SBBI and the use of the acronym within the draft. |  |
| 208 | 9.37a.2.1 | 130 | 18 | T | As the same as CID195 | As the same as CID195 |  |
| 210 | 9.37a.2.1 | 126 | 19 | T | As the same as CID195 | As the same as CID195 |  |
| 223 | 9.37a.2.1 | 126 | 26 | T | As the same as CID195 | As the same as CID195 |  |
| 224 | 9.37a.2.1 | 126 | 27 | T | As the same as CID195 | As the same as CID195 |  |
| 231 | 9.37a.2.1 | 126 | 30 | T | As the same as CID195 | As the same as CID195 |  |
| 234 | 9.37a.2.1 | 126 | 31 | T | As the same as CID195 | As the same as CID195 |  |
| 240 | 9.37a.2.1 | 126 | 34 | T | As the same as CID195 | As the same as CID195 |  |
| 253 | 9.37a.2.1 | 126 | 41 | T | As the same as CID195 | As the same as CID195 |  |

Proposed resolution: **Revised.**

In 802.11 REVmc 4.2, TBTT (target beacon transmission time) indicates the start time point of a beacon interval. See the following txt as an example:

“**10.1.3.3 Beacon generation in a DMG infrastructure BSS and in a PBSS**

**10.1.3.3.1 General**

*(Fourth paragraph:)*

A PCP and a DMG AP establish a series of Target Beacon Transmission Times (TBTTs) spaced dot11BeaconPeriod TUs apart. The period between two TBTTs is referred to as the beacon interval. The beacon interval length shall be no more than aMaxBIDuration. Time value zero of the TSF is defined to be a TBTT.”

On the other hand beacon interval (BI) is a well known concept in 802.11, so proposed to change the definition of “CDMG SBBI” as follows:

"**China directional multi-gigabit small band beacon interval (CDMG SBBI):** A value, in units of TUs, represents the length of a beacon interval (BI) operating on one of the 1.08 GHz channels of a 2.16 GHz channel for a CDMG BSS. ~~a value that represents the number of time units (TUs) between target beacon transmission times (TBTTs) on a 1.08 GHz channel for a CDMG STA that is operating on the 1.08 GHz channel."~~ "

***Insert the following acronyms into 3.4 in alphabetic order:***

“SBBI small band beacon interval”