IEEE P802.11
Wireless LANs

|  |
| --- |
| 802.11bi – Comment resolution Clauses 9.6.42.7, 9.4.2.349 |
| Date: March 10, 2024 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Antonio de la Oliva | Interdigital Ltd, UC3M |  |  | aoliva@it.uc3m.es |

 Abstract

This submission addresses the comments with CID:

123, 219, 951, 1020, 211

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** | **Resolution** |
| 123 | 9.6.42.7 | 73 | 1 | Inconsist use of "ota" and "OTA". | Change to: OTA MAC Collision Warning frame | ACCEPTNote to editor: CID 123 is the same as 950 and both are ACCEPTED |
| 219 | 9.6.42.7 | 73 | 42 | Unclear sentence. | Please change to:" The otaMAC Collision Warning frame warns on upcoming MAC address collision with another STA". | REVISEDRevised to The OTAMAC Collision Notification frame warns of an upcoming MAC address collision with another STA in a given epoch.Also, the Warning frame has been re-named as Notification and a new Response frame has been added.See resolution tagged with [219] in document with DCN 25/693r1. |
| 951 | 9.6.42.7 | 73 | 3 | Bad grammar. We typically use "indicate" not "signal". It is not clear what the adjective "OTA" adds. Do we use MAC addresses in some other manner? It is not obvious what collision means (e.g., it could mean that to transmissions overlap). I don't see how a calculation can predict collision. Isn't it a comparison operation? Does it matter if the MAC addresses are used in different epochs? Presumably not. | Change to "The OTA MAC Collision Warning frame is used to indicate that a MAC address that will be used by an EDP non-AP MLD in an upcoming epoch is the same as a the MAC address that will be used by another STA in that epoch." Since we don't want to repeat information, change the sentence at 61.54 to "The OTA MAC Collison Warning element is sued in the OTA MAC Collision Warning frame (see 9.6.42.7). | REVISEDRevised to The OTAMAC Collision Notification frame warns of an upcoming MAC address collision with another STA in a given epoch.Also, the Warning frame has been re-named as Notification and a new Response frame has been added.See resolution tagged with [219] in document with DCN 25/693r1. |
| 1020 | 9.6.42.7 | 73 | 3 | "is used to signal when an OTA MAC address expected to be used by an EDP non-AP MLD in an upcoming epoch is calculated". Two issues. First, it is not used justby the AP MLD to signal when this ocurs, but is also used in a response from the non-AP MLD. Also, the description does nto clarify who does the calculation | Replace "is used when an OTA MAC address expected to be used by a non-AP MLD in an upcoming epoch is calculated (by the AP MLD)" | REVISEDRevised to The OTAMAC Collision Notification frame warns of an upcoming MAC address collision with another STA in a given epoch.Also, the Warning frame has been re-named as Notification and a new Response frame has been added.See resolution tagged with [219] in document with DCN 25/693r1. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** | **Resolution** |
| 211 | 9.4.2.349 | 62 | 10 | In some cases, multiple collision warning messages may be send to the same receiver. A dialog token is typically added to management frames to ensure that each receiver knows which management frames are new and which are retransmissions, etc. | Please add a Dialog Token to the collision warning frame. | REVISEDEditor please implement changes tagged as [211] in document with DCN 25/693r1 |

**9.6.42.7 [123] OTA ~~ota~~MAC Collision ~~Warning~~ [219] Notification frame format**

[219] ~~The~~ **~~[123] OTA~~** ~~otaMAC Collision Warning frame is used to signal when an OTA MAC address expected to be used by an EDP non-AP MLD in an upcoming epoch is calculated to collide with the MAC address of another STA.~~

[219] The [123] OTAMAC Collision ~~Warning~~ Notification frame warns of an upcoming MAC address collision with another STA in a given epoch.

**Table 9-658ac—[123] OTA ~~ota~~MAC Collision ~~Warning~~ [219] Notification frame Action field format**

|  |  |
| --- | --- |
| **Order** | **Meaning** |
| 0 | Category |
| 1 | EDP Action |
| 2 | [211] Dialog Token |
| ~~2~~ 3 | OTA MAC Collision Warning element |

The Category field is defined in 9.4.1.11 (Action field).

The EDP Action field is defined in 9.6.42.1 (EDP Action field).

[211] The Dialog Token field is defined in 9.4.1.12 (Dialog Token field).

The OTA MAC Collision Warning element is defined in 9.4.2.349 (OTA MAC Collision Warning element).

***Note to editor: Please add the following clause after 9.6.42.7.***

**[219] 9.6.42.8 OTA MAC Collision Response frame format**

[219] The OTAMAC Collision Response frame indicates the action the STA will take based on the information on the OTA MAC Collision Notification frame.

**Table 9-658ac—OTA MAC Collision Response frame Action field format**

|  |  |
| --- | --- |
| **Order** | **Meaning** |
| 0 | Category |
| 1 | EDP Action |
| 2 | Dialog Token |
| 3 | OTA MAC Collision Warning element |

The Category field is defined in 9.4.1.11 (Action field).

The EDP Action field is defined in 9.6.42.1 (EDP Action field).

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field).

The OTA MAC Collision Warning element is defined in 9.4.2.349 (OTA MAC Collision Warning element).

***Editor please do the following changes in section 10.71.2.5 [123]***

A CPE AP MLD may calculate that the OTA MAC address that a CPE non-AP MLD is anticipated to use in a subsequent epoch may cause a collision with the OTA MAC address of another CPE non-AP MLD(s) or another STA in the ESS. When such a collision is detected, the CPE AP MLD shall send to the CPE non-AP MLD an OTA MAC Collision Notification frame before the epoch where the collision is anticipated to risk occurring and indicated in the Colliding Epoch field, instructing the non-AP MLD to apply the non-AP MLD specific epoch offset signaled in the AP MLD OTA MAC Collision Warning frame to avoid address collision.(#557)

Thus, if the Colliding Epoch value is m, indicating that the collision is expected to occur m epochs after the current epoch, and if the non-AP MLD Specific Epoch Number Offset is n, then for the epoch occurring m epochs later, the CPE AP MLD is requesting the CPE non-AP MLD to use the CPE non-AP MLD OTA MAC address that the CPE non-AP MLD had planned to use for the epoch occurring m+n epochs later. In the subsequent epoch, the CPE non-AP MLD is expected to use the CPE non-AP MLD OTA MAC address that the CPE non-AP MLD had planned to use m+n+1 epochs later, unless the CPE AP MLD also signals a collision warning for that epoch. The CPE non-AP MLD shall respond with an OTA MAC Collision Response frame acknowledging the CPE AP MLD warning, and either accepting the CPE AP MLD proposed remediation, thus applying the offset requested by the CPE AP MLD, or rejecting the CPE AP MLD proposed remediation, and thus using the CPE non-AP MLD OTA MAC address that the CPE non-AP MLD had planned to use for that epoch before receiving the CPE AP MLD OTA MAC Collision Notification frame.(#557)

***Editor please do the following changes in section 9.4.2.349 [123]***

The Collision Status field indicates the intent of the OTA MAC Collision Warning element. The field takes value 0 when sent by the AP MLD in an OTA MAC Collision Notification frame, and values 1 or 2 when sent by the EDP non-AP MLD in an OTA MAC Collision Response frame. Table 9-401h lists the possible values and their meaning.(#557)