IEEE P802.11
Wireless LANs

|  |
| --- |
| 11bi LB290 - Comment resolution for some comments in 10.71.7 |
| Date: 2025-09-15 |
| Author(s): |
| Name | Affiliation | Address | Phone | Email |
| Domenico Ficara | Cisco |  |  | dficara@cisco.com |
| Ugo Campiglio | Cisco |  |  | ucampigl@cisco.com |
| Javier Contreras | Cisco |  |  | jacontre@cisco.com |
| Jerome Henry | Cisco |  |  | jhenry@cisco.com |
| Federico Lovison | Cisco |  |  | flovison@cisco.com |

Abstract

This submission resolves the following CIDs:

 2004, 2043, 2057, 2058, 2059, 2158, 2265, 2266, 2269, 2270, 2271, 2314,

Revisions:

* Rev 0: Initial version of the document.

***Editing instructions formatted like this are intended to be copied into the TGbi D2.0 Draft. (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents). TGbi Editor: Editing instructions preceded by “TGbi Editor” are instructions to the TGbi editor to modify existing material in the TGbi draft. As a result of adopting the changes, the TGbi editor will execute the instructions rather than copy them to the TGbi Draft.***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 2004 | 10.71.7 | 116.18 | Need a condition for the "may" statement to differentiate it from the previous paragraph. | Change to: The CPE AP MLD may generate a new AID list and send a new AID Assignment frame with the new AID List element to the associated non-AP CPE MLD at any time. | Accepted -  |
| 2043 | 10.71.7 | 115.30 | SO CPE non-AP MLDs have to indicate an AID storage size. If not enough, in the view of the CPE AP MLD, then the non-AP is in trouble. What indications are there as to how much storage space the non-AP should allocate? If a device is going to all this trouble to iplement FA and all the processing required, it seems strange to me that it does not have enough storage space for anticipated AID lists. Surely the storage space or number of AIDs should be specified so the non-AP device knows what is needed in order for the FA to work. I don't get it. | Tell a non-AP MLD what the AID storage reqquirment is. Change this so that the AP and non-AP know what to allocate. Re-write 10.71.7. | Rejected – The CPE AP MLD already tells the non-AP MLD what size to allocate. And if the non-AP MLD does not allocate enough space, it is not allowed in.In fact, the first sentence of the clause reads “Upon advertisement of EPP groups (as defined in 10.71.2.2 (EPP group operations)), the CPE AP MLD shall include an AID Storage Size field in the EPP Epoch Settings Field…”And then the third paragraph says:“If the AID Storage Size field indicated by the CPE non-AP MLD is lower than that indicated by the CPE AP MLD, then the CPE AP shall transmit an EPP Response frame with FAILURE\_AID\_STORAGE\_TOO\_SMALL…”To restate: non-AP MLDs that want to implement this, just need to allocate at least what the AP MLD says.  |
| 2057 | 10.71.7 | 116.18 | "The CPE AP MLD may generate a new AID list and send a new AID Assignment Requestframe with thenew AID List element to the associated non-AP CPE MLD."It is confusing to read this sentence right after the previous one. I understand this means ""at any time, the AP can override a previous list but I think this sentence should say it explicitely | Add "At any time". | Accepted -  |
| 2058 | 10.71.7 | 116.25 | "The AID value indicatedin the AID field of the (Re)Association Response shall not be overridden." Also the current epoch AID should not be overridden. | Change the sentence to "The AID value in use in the current epoch shall not be overridden" | Accepted -  |
| 2059 | 10.71.7 | 116.55 | The sentence is unclear."The CPE AP MLD should disassociate the CPE non-AP MLD using the Status Code NO\_ASSIGNED\_AID, on receiving a protected individually addressed frame not specified in the previous list froma CPE non-AP MLD not having an AID assigned for the current EPP epoch." | Change the sentence to:"The CPE AP MLD should disassociate with the Status Code NO\_ASSIGNED\_AIDthe CPE non-AP MLD that has no AID assigned for the current epoch and that transmits a protected individually addressed frame of a type not includedin the previous list." | Revised – Agree in principle with the commenter. The last sentence has been slightly modified to better fit the rest of the text. Instructions to the editor: Please make the changes as shown under CID 2059 in this document |
| 2158 | 10.71.7 | 116.19 | Is this sentence missing something? It repeats the previous sentence as a 'may' instead of 'should' with no other explanation. | Remove sentence or clarify when the 'may' applies. | Revised –Clarified with resolution of comment 2004 and 2057 that this is at any time. Instructions to the editor: Please make the changes as shown under CID 2004 in this document |
| 2265 | 10.71.7 | 115.27 | EPP Groups Parameter, EPP Epoch Response frames advises EPP groups but does not include EPP element. EPP Epoch Assignment frame includes only one EPP Epoch Settings field. (Re)Association Response frame includes one EPP element with only one EPP Epoch Settings field. | Change "the EPP element" to "the EPP Epoch Settings field" | Accepted - |
| 2266 | 10.71.7 | 115.30 | EPP Epoch Request frame includes one EPP Epoch Settings field but does not include EPP element. | Change "the EPP element" to "the EPP Epoch Settings field" | Accepted -  |
| 2269 | 10.71.7 | 116.40 | Change "and respond transmitting them in anAID Assignment frame" to "by transmitting anAID Assignment frame" | As in comment | Accepted -  |
| 2270 | 10.71.7 | 116.45 | The MLD maybe has been assigned an AID, but not valid. | Change "The CPE non-AP MLD not having any AID assigned for the current EPP epoch" to "The CPE non-AP MLD not having a valid AID for the current EPP epoch" | Revised – Indeed, “valid” is used as a qualifier for AID in the previous paragraph. However, rather than adding another definition, it appears simpler to clarify that the meaning is “assigned in the current EPP Epoch”.Therefore the use of “valid” in the previous paragraph has been replaced with “any assigned AID in the current EPP Epoch”. Instructions to the editor: Please make the changes as shown under CID 2270 in this document |
| 2271 | 10.71.7 | 116.58 | The MLD maybe has been assigned an AID, but not valid. | Change "a CPE non-AP MLD not having an AID assigned for the current EPP epoch" to "a CPE non-AP MLD not having a valid AID for the current EPP epoch" | Rejected – We note that “valid” is used as a qualifier for AID in the previous paragraph. However, the meaning is “assigned”. |
| 2314 | 10.71.7 | 115.59 | We require the AP to generate a list "for the number of epochs indicated," and also allow the AP to advertise Epochs Remaining, including "unlimited." There's no tie-up ensuring the list covers the skip offset the AP may later instruct for collision avoidance. | Add that the AP shall ensure that the non AP MLD has received a number of AID whose number of epochs >= q+1 | Revised –Added reference to clause 10.71.2.5 and clarified that the number of epochs is larger than q+1.Instructions to the editor: Please make the changes as shown under CID 2314 in this document |

***Proposal:***

**TGbi Editor: *Instruction: Please modify 10.71.7 as shown below***

* Frame anonymization and AID

Upon advertisement of EPP groups (as defined in 10.71.2.2 (EPP group operations)), the CPE AP MLD shall include an AID Storage Size field in the EPP Epoch Settings field(#2265) it transmits.

A CPE non-AP MLD shall include an AID Storage Size field in the EPP Epoch Settings field(#2266) of each (Re)Association Request frame and EPP Epoch Request frame it transmits.

If the AID Storage Size field indicated by the CPE non-AP MLD is lower than that indicated by the CPE AP MLD, then the CPE AP shall transmit an EPP Response frame with FAILURE\_AID\_STORAGE\_TOO\_SMALL in the Status field to indicate that the non-AP MLD is not allowed to join in the EPP group.

A CPE AP MLD generates a list of AIDs that an associated CPE non-AP MLD shall use in the subsequent epochs. While generating the list of AIDs, the AP MLD shall apply the rules in 35.3.5.1 (ML (re)setup procedure) and ensure that, at any point of time, each non-AP MLD is assigned an unique AID value.

The AID list size (indicated by the Number of Epochs field in Figure 9-1074du (AID List Value field format) shall be smaller than or equal to the value of AID Storage Size provided by the CPE non-AP MLD.

The CPE AP MLD shall include the AID List element in the (Re)Association Response frame.

The CPE non-AP MLD shall use the AID field in the (Re)Association Response for any communication in the EPP epoch where the (Re)Association Response is received.

For subsequent AID assignments, the CPE AP MLD shall transmit an AID Assignment Request frame to the non-AP MLD with the AID List element that contains the AID values. If the AID assignment operation has been successful, the CPE non-AP MLD and the CPE AP shall use the AIDs in the AID List element for any communications, starting from the epoch indicated in the Start Epoch field, for the number of epochs indicated in the Number Of Epochs field. The Number Of Epochs field value shall be greater than q+1, where q is the epoch count that the CPE non-AP MLD is requested to skip (as described in 10.71.2.5 OTA MAC address collision avoidance)(#2314).

A receiving CPE non-AP MLD, that has not been able to store every AID of the AID list shall respond with an AID Assignment Response frame. The Status Code field in the AID Assignment Response frame shall be set according to the result of the AID assignment operation as follows:

* Status Code SUCCESS\_AID\_LIST\_PARTIALLY\_STORED indicates that the AID assignment operation has been successful but only the initial part of the AID list has been stored by the CPE non-AP MLD. In this case, the CPE non-AP MLD shall include the Number Of Stored AIDs field and set it to the number of the stored AID values.
* Status Code FAILURE\_AID\_LIST\_NOT\_STORED indicates that the AID assignment operation has failed. The non-AP MLD has not stored any AID in the AID list.

A CPE non-AP MLD that successfully stores the AID list may not respond with an AID Assignment Response frame.

Before the end of all the epochs indicated in the Number of Epochs field, the CPE AP MLD shall generate a new list of AID values and send a new AID Assignment Request frame with the new AID List element to the associated non-AP CPE MLD.

The CPE AP MLD may generate a new AID list and send a new AID Assignment Request frame with the new AID List element to the associated non-AP CPE MLD at any time (#2004, #2057).

If the Start Epoch field of the AID List element indicates an epoch for which an AID has been already assigned, the AIDs in the AID list shall override the previously assigned AIDs beginning from the epoch number value indicated by the received Start Epoch field of the AID List element. The AID value in use in the current EPP Epoch (#2058)shall not be overridden.

Upon AID assignment failure, the CPE AP MLD may repeat the AID assignment operation. Upon subsequent failures, the CPE AP MLD may request the CPE non-AP MLD to join a different EPP group.

When the CPE non-AP MLD has no available AID for the current or the next EPP epoch, it should request a new AID list to stay associated with the current CPE AP MLD by transmitting an AID Assignment Response Action frame using the Status Code NO\_ASSIGNED\_AID.

After the CPE non-AP MLD has transmitted the AID Assignment Response Action frame, the non-AP MLD shall set at least one STA to active mode and stay awake until it receives the AID list.

The CPE AP MLD shall assign new AIDs for the coming EPP epochs by (#2269) transmitting them in an AID Assignment frame. The CPE AP MLD shall not send any data frames to the CPE non-AP MLD not having any assigned(#2270) AID in the current EPP Epoch(#2270).

The CPE non-AP MLD not having any AID assigned for the current EPP epoch shall not transmit to the current CPE AP MLD frames other than:

* AID Assignment Response Action frame
* Disassociation frame
* Deauthentication frame
* Control frames

The CPE AP MLD should disassociate with (#2059)the Status Code NO\_ASSIGNED\_AID, the CPE non-AP MLD that has no AID assigned for the current EPP epoch and that transmits (#2059)a protected individually addressed frame of a type (#2059) not specified in the previous list. (#2059)