IEEE P802.11
Wireless LANs

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| 11bi LB290 - Comment resolution for some AID related CIDs |
| Date: 2025-09-18 |
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Abstract

This submission resolves the following CIDs:

2062, 2063, 2112, 2113, 2186, 2327, 2328, 2359, 2378, 2484, 2485, 2043, 2394

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: fix CID list and add additional CIDs in the list
* Rev 2: update after presentation at Oct 13th telecon
* Rev 3: simplification for CID 2394

***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.***

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| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 2062 | 9.3.3.6 | 43.10 | AID list element missing in table 9-65 | Add AID list, with note "This element is present for CPE non-AP MLD if dot11EPPGroupEpochActivated is true" | Accepted - |
| 2063 | 9.3.3.8 | 44.10 | AID list element missing in table 9-67 | Add AID list, with note "This element is present for CPE non-AP MLD if dot11EPPGroupEpochActivated is true" | Accepted - |
| 2112 | 9.4.1.84 | 52.57 | Missing words | The sentence: "When transmitted by a AP MLD, the AID Storage Size field indicates the minimum number of AID values anon-AP MLD is able to be allowed to join in the EPP group." is missing words. Change to "When transmitted by a AP MLD, the AID Storage Size field indicates the minimum number of AID values a non-AP MLD is capable of storing to be allowed to join in the EPP group." | Accepted - |
| 2113 | 9.4.2.5.1 | 59.33 | What is the meaning of this note at the very end of the subclause? There is no other mention of CPE AP MLD handling TIM assignments, only BPE assignments. | Consider placing this note before Figure 9-215 and add an explanation in 10.71 of what conditions might cause a CPE AP to insert 1's into a TIM when there is not buffered traffic. | Revised –Modified the second paragraph in 11.2.3.3 to give more context.Instructions to the editor: Please make the changes as shown under CID 2113 in this document and please move the Note 1 in 9.4.2.5.1 before Figure 9-215. |
| 2186 | 9.6.42.1 | 85.54 | Value 8 of Table 9-658u should be AID Assignment Request instead of AID Assignment. | As per comment | Accepted -  |
| 2327 | 9.4.1.84 | 57.52 | "is able to be allowed to join" is strange wording, and the allowed numeric range is not stated | Reword for better english, and clarify min/max and that 0 is reserved | Revised –First part is solved with #2112. For the second part, added a clarifying sentence.Instructions to the editor: Please make the changes as shown under CID 2327 in this document |
| 2328 | 9.4.2.351 | 77.64 | "The Start Epoch field is the 2 least significant octets of the EPP epoch", with long running sequences, the receiver needs a deterministic rule to map the 16 bit value to an absolute epoch number | Add a clairficaiton on how to interpret the 16 LSBs | Revised –Agree in principle with the commenter.Added some changes to qualify the “EPP Epoch” to cover the request.Instructions to the editor: Please make the changes as shown under CID 2328 in this document |
| 2359 | 9.6.42.10 | 91.04 | In 10.71.7, it is said that this is the AP MLD which sends the AID Assignment Request frame. In this paragraph, it is stated that the AID Assignment Request frame is transmitted by a non-AP MLD. If the non-AP MLD sends the frame it is strange that the frame was used to assign the AID. | Please change non-AP MLD by AP MLD in the first sentence | Revised – Agree in principle with the commenter.Added also a “CPE” qualifier.Instructions to the editor: Please make the changes as shown under CID 2359 in this document |
| 2378 | 9.4.1.84 | 57.15 | "indicates the minimum number of AID values a non-AP MLD is able to be allowed to join in the EPP group" does not parse around "is able to be". | Replace the identified text with: "indicates the minimum number of AID values a non-AP MLD is able to store to be allowed to join in the EPP group"Note: Inserted "to store" | Revised – Solved with #2112Instructions to the editor: Please make the changes as shown under CID 2112 in this document |
| 2484 | 9.4.2.351 | 77.63 | EPP Group ID field is part of the AID List element but is not defined in the text below the Figure. | Add text to define setting for EPP Group ID. | Revised –Agree in principle with the commenter. Added description and boundaries. Instructions to the editor: Please make the changes as shown under CID 2484 in this document |
| 2485 | 9.4.2.351 | 77.64 | Text "The Start Epoch field is the 2 least significant octets of the EPP epoch corresponding to the AID for Start Epoch field in the AID List Value field." needs further clarity. It is not fully clear what is being conveyed. | Revise the text to make the sentence clear. | Revised –Agree in principle with the commenter. Reworded.Instructions to the editor: Please make the changes as shown under CID 2485 in this document |
| 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. | Revised –Agree in principle with the commenter.Reported this comment from Clause 10.71.7 to clause 9 because it refers to valid values for AID Storage size.Added a validity range in 9.4.1.84 as part of resolution of #2327.Instructions to the editor: Please make the changes as shown under CID 2327 in this document |
| 2394 | 10.71.2.2 | 96.09 | The AID Storage Size can only be communicated by the CPE non-AP MLD in an EPP Epoch Settings field.My understanding is that this field is only sent if the CPE non-AP MLD is requesting to join a non-default EPP group. It is unclear how the non-AP MLD indicates AID Storage Size if the CPE non-AP does not send an EPP Epoch Settings field. | Clarify how the non-AP MLD indicates AID Storage Size if the CPE non-AP does not send an EPP Epoch Settings field | Revised – Agree in principle with the commenter.Made the EPP Element (with EPP Epoch Settings field) mandatory for EPP STAs that support EPP Epoch Groups. Instructions to the editor: Please make the changes as shown under CID 2394 in this document |

***Proposal:***

**TGbi Editor: *Instruction: Please add a row to table 9-65 in 9.3.3.6 as shown below***

* Association Response frame format

|  |
| --- |
| * Association Response frame body (continued)
 |
| Order | Information | Notes |
| … |  |  |
| ANA | AID List | This element is present for CPE non-AP MLD if dot11EPPGroupEpochActivated is true(#2062) |

**TGbi Editor: *Instruction: Please add a row to table 9-67 in 9.3.3.8 as shown below***

* Reassociation Response frame format

|  |  |
| --- | --- |
|

|  |
| --- |
| * Reassociation Response frame body
 |

 |
| Order | Information | Notes |
| … |  |  |
| ANA | AID List | This element is present for CPE non-AP MLD if dot11EPPGroupEpochActivated is true(#2063) |

**TGbi Editor: *Instruction: Please modify the last paragraphs of clause 9.4.1.84 (not all text is reported) as shown below***

* EPP Epoch Settings field

[…]

The Participating Affiliated STAs Percentage field value is the percentage of the associated affiliated non-AP MLDs participating to the signaled EPP group on the MLD. The Participating Affiliated STAs Percentage field can have a value from 0 to 100, and values 101-255 are reserved.

When transmitted by a AP MLD, the AID Storage Size field indicates the minimum number of AID values a non-AP MLD is capable of storing(#2112, #2327) to be allowed to join in the EPP group.

When transmitted by a non-AP MLD, the AID Storage Size field indicates the number of AID values that the non-AP MLD can store.

The AID Storage Size field can have a value from 16 to 1024 and values 0-15 and 1025-65535 are reserved.(#2327)

**TGbi Editor: *Instruction: Please modify clause 9.4.2.351 as shown below***

* AID List element

The AID List element contains a sequence of AID values for the receiving EPP non-AP MLD to use in a sequence of contiguous EPP epochs for frame anonymization.

The format of the AID List element is shown in Figure 9-1074dt (AID List element).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Element ID | Length | Element ID Extension | EPP Group ID | Start Epoch | Number Of Epochs | AID List Value |
| Octets: | 1 | 1 | 1 | 1 | 2 | 2 | variable |
| * AID List element
 |

The Element ID, Length and Element ID Extension fields are defined in 9.4.2.1 (General).

The EPP Group ID contains an identifier of the EPP group. The value 0 indicates the default EPP group. The value 255 is reserved.(#2484)

The Start Epoch field is the 2 least significant octets of the future closest(#2328) EPP epoch number where the first AID in the AID List Value field is assigned(#2485).

The Number Of Epochs field indicates the number, n, of consecutive epochs for which AID fields are provided.

The AID List Value field format is shown in Figure 9-1074du (AID List Value field format).

|  |  |  |
| --- | --- | --- |
|  | AID12s | Padding |
| Bits | n × 12 | 0 or 4 |
| * AID List Value field format
 |

The number of AID12 fields is equal to the value in the Number Of Epochs field.

Each AID12 field is 12 bits and indicates the 12 LSBs of an AID assigned to an epoch. The ith AID12 field is the AID for the ith epoch of the consecutive epochs.

A Padding field is optionally present to align the field to octet limits.

**TGbi Editor: *Instruction: Please modify the reported row in table 9-658u (not all rows reported) under clause 9.6.42.1 as shown below***

|  |
| --- |
| * EPP Action field values
 |
| Value | Meaning |
|  | … |
| 8 | AID Assignment Request(#2186) |
|  | … |

**TGbi Editor: *Instruction: Please modify the clause 9.6.42.10 as follows***

* AID Assignment Request frame format

The AID Assignment Request frame is transmitted by a CPE(#2359)AP MLD as part of setting up frame anonymization. The frame assigns AID values to the receiving CPE STA for the coming epochs.

*[…rest of clause 9.6.42.10 does not change…]*

**TGbi Editor: *Instruction: Please modify 10.71.2.2 as follows***

* Group EPP Epoch (#2394)operations

A CPE AP MLD advertises the support for group EPP epoch(#2394) operations in Beacon and Probe Response frames by setting the Group EPP Epoch Supported field of the Extended RSN Capabilities field of the RSNXE to 1.

A non-AP MLD advertises the support for group EPP epoch (#2394) operations in (Re)Association Request frames by setting the Group EPP Epoch Supported field of the Extended RSN Capabilities field of the RSNXE to 1.

The non-AP MLD that supports group EPP epoch operations shall(#2394) include in an encrypted (Re)Association Request frame an EPP element indicating the parameters for the EPP group it requests to join. .(#2394)

*[…rest of clause 10.71.2.2 does not change…]*

**TGbi Editor: *Instruction: Please modify 11.2.3.3 as follows***

* AP TIM transmissions

***Insert the following paragraph after the first paragraph:***

A CPE AP may set additional bits to 1, in the TIM's partial virtual bitmap, corresponding to AIDs that are not assigned in the current EPP epoch, to prevent an eavesdropper from easily determining the number of CPE non-AP MLDs with buffered traffic(#2113).