IEEE P802.11
Wireless LANs

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| D1.0 FA Requirements |
| Date: 2025-07-31 |
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Abstract

This submission proposes resolution of comments received against the following sections of TGbi Draft 1.0 (see [1]):

* 10.71.1 (Introduction)

We propose draft specification text for TGbi draft D1.3.

Resolved CIDs (7): 129, 130, 131, 156, 510, 957, 1045

Revisions:

* Rev 00: Initial version of the document
	+ CID #129, #130, #131, #156, #510, #957 moved from 25/1100r03, some with updates.
	+ Included CID #1045.
* Rev 01: Updated following discussion in 2025-07-31 AM1 session in Madrid
* Rev 02: Updated following discussion in 2025-07-31 AM2 session in Madrid

**Background**

Overview of noteworthy changes

* Updates to 3.2 (Definitions specific to IEEE 802.11)
	+ Definition of FA Mode
* Updates to 10.71.1 (Introduction):
	+ Introduction to FA Mode (Disabled, CPE-only, BPE)
	+ Use of MIB in text
* Updates to Annex C.3 (MIB detail):
	+ Definition of an MIB for enabling CPE FA mechanisms or BPE FA mechanisms (noting BPE FA includes CPE FA)

*Note: Another document will define capability MIBs, advertising, and negotiating FA Mode*

| **CID** | **Commenter** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- | --- |
| 510 | Mark RISON | 10.71.1 | 75.22 | "DS MAC address" is missing an article | Prepend "a " | **Revised**. **Changes:***Instructions to the editor:*Please make the changes as shown under CID #510 in doc 11-25/1385 |
| 156 | Stephen McCann | 10.71.1 | 75.23 | What does "DS MAC address supported" mean? How can you support a MAC address? | Change "DS MAC address supported" to "the use of a destination MAC address is supported". | **Revised**. **Changes:***Instructions to the editor:*Please make the changes as shown under CID #156 in doc 11-25/1385 |
| 957 | Robert Stacey | 10.71.1 | 76.19 | When writing a requirement, it is better to use the singular. The plural is not implementable or testable (an implementor has design control over one implementation not all implementations). Also, if you define one way of doing something it applies in all instances. Finally, introduce the requirements with the statement in the note -- it help understanding. | Replace the two sentences at 76.19 and 76.21 as well as the NOTE with the following:"In order to provide confidentiality for the SA and DA, the following apply:- A CPE STA should transmit an MSDU in an A-MSDU.- A BPE STA shall transmit an MSDU in an A-MSDU." | **Revised****Changes:***Instructions to the editor:*Please make the changes as shown under CID #957 in doc 11-25/1385 |
| 1045 | Philip Hawkes | 10.71.2.2 | 76.51 | Lines 51-57 applies to support of frame anonymization as a whole, not just "EDP groups". | Reword to place emphasis on support for frame anonymziation. | **Rejected****Rationale**: No changes needed. Support for EDP groups can be advertised independently of support for FA mechanisms. |
| 129 | Chaoming Luo | 10.71.6.1 | 89.35 | It's not clear how is CPE enabled or not enabled, and also not clear how is BPE enabled or not enabled. | Add Operation element or dot11 varibles to enable/disable CPE and BPE. | **Revised****Changes:***Instructions to the editor:*Please make the changes as shown under CID #129 in doc 11-25/1385 |
| 130 | Chaoming Luo | 10.71.6.1 | 90.39 | Change "a non-AP MLD" to "a CPE non-AP MLD" | As in comment | **Revised****Changes:***Instructions to the editor:*Please make the changes as shown under CID #130 in doc 11-25/1385 |
| 131 | Chaoming Luo | 10.71.6.1 | 90.46 | Change "a AP MLD" to "a CPE AP MLD" | As in comment | **Revised****Changes:***Instructions to the editor:*Please make the changes as shown under CID #131 in doc 11-25/1385 |

***The baseline for this text is Draft P802.11bi\_D1.2.***

***TGbi editor: The following changes are to 10.71.1 (Introduction).***

***TGbi editor: Apply the following changes starting at page 75 line 23.****Addresses CIDs: #156*

Frame anonymization (FA) is an EDP CPE feature available when MLO is supported. (#156)

***TGbi editor: Insert the following text at page 76 line 17.****Addresses CIDs: #128, #129, #130, 131*

Table 10-<TBD> describes the values of the CPE Frame Anonymization Supported field and BPE Frame Anonymization Supported field of the Extended RSN Capabilities field of the RSNXE used to advertise to the FA mechanisms enabled by an MLD.

Table 10-<TBD> Advertising FA mechanisms enabled by an MLD

|  |  |  |  |
| --- | --- | --- | --- |
| Field of the Extended RSN Capabilities field of the RSNXE | FA is not enabled | CPE FA mechanisms are enabled, BPE FA mechanisms are not enabled | CPE FA mechanisms are enabled, BPE FA mechanisms are enabled |
| CPE Frame Anonymization Supported | 0 | 1 | 1 |
| BPE Frame Anonymization Supported | 0 | 0 | 1 |

(#129)

Only MLDs may implement FA mechanisms.

If an AP MLD that has FA mechanisms enabled, then the AP MLD shall advertize the enabled FA mechanisms in Beacon and Probe Response frames using the CPE Frame Anonymization Enabled field and BPE Frame Anonymization Enabled field of the Extended RSN Capabilities field of the RSNXE, using the values specified in Table 10-<TBD>. (#129)

If an AP MLD has CPE FA mechanisms enabled and does not have BPE FA mechanisms enabled, then:

* The AP MLD allows non-AP STAs and non-AP MLDs that do not have FA enabled to associate. FA shall not be applied to individually addressed frames transmitted to or received from an associated non-AP STA or an associated non-AP MLD that does not have FA enabled. (#129)
* The AP MLD shall apply CPE FA mechanisms to individually addressed frames transmitted to or received from an associated non-AP MLD that advertises that CPE FA mechanisms are enabled. (#129)

NOTE 1— In this case, the AP MLD ignores the BPE Frame Anonymization Supported field of the Extended RSN Capabilities field of the RSNXE element. (#129)

If an AP MLD has BPE FA mechanisms enabled (which implies that CPE FA mechanisms are enabled), then:

* The AP MLD shall apply BPE FA mechanisms to all frames. (#129)
* Only non-AP MLD that advertises that BPE FA mechanisms are enabled may associate with the AP MLD. (#129)
* The AP MLD shall apply CPE FA mechanisms to individually addressed frames transmitted to or received from an associated non-AP MLD. (#129)

If a non-AP MLD has FA mechanisms enabled, then

* the non-AP MLD shall advertize the enabled FA mechanisms in (Re)Association Request frames using the CPE Frame Anonymization Enabled field and BPE Frame Anonymization Enabled field of the Extended RSN Capabilities field of the RSNXE, using the values specified in Table 10-<TBD>. (#129)
* dot11DSMACAddressActivated shall be set to true. (#156, #510)

For all operations described in clause 10.71, an MLD has CPE FA mechanisms enabled, unless otherwise noted. (#129)

NOTE 1— In the remainder of clause 10.71 the following rules explain how the prefixes for the terms MLD, AP MLD or non-AP MLD are related to the FA mechanisms enabled.

* If no prefix is present, then CPE FA mechanisms are enabled and BPE FA mechanisms may or may not be enabled.
* If a “BPE” prefix is present, then both CPE FA mechanisms and BPE FA mechanisms are enabled. (#130, #131)

***TGbi editor: Apply the following changes starting at page 76 line 19.****Addresses CIDs: #129, #957*

An MLD applying CPE FA mechanisms should transmit an MSDU in an A-MSDU. (#129, #957)

An MLD applying BPE FA mechanisms shall transmit an MSDU in an A-MSDU. (#129, #957)

**References:**