**IEEE P802.11
Wireless LANs**

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| PDT Joint MLME SAP |
| **Date**: Dec. 12, 2024.  |
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 **Abstract**

This document contains Proposed Draft Text (PDT) for the MLME interface for the Multi-AP Coordination (MAPC) feature of TGbn amendment to the 802.11 standard.

Revisions:

* Rev 0: Initial version of the document.

Relevant passing motion (with green tags added for context):

|  |
| --- |
| Motion 185 (MAC)Move to add to the TGbn SFD the following: * Define a mechanism in 11bn that defines:
	+ (#M185.1)AP-to-AP frame formats to enable interoperable MAPC across APs and including MLME primitive(s) so that a pair of AP’s SMEs can orchestrate the over-the-air transmission and reception of these frames
	+ (#M185.2)MLME primitive(s) so that a pair of AP’s SMEs may send the content of the non-real-time instances of such AP-to-AP frames over-the-DS between peer AP-MLMEs (rather than over-the-air via peer AP MACs)

Result: Approved with unanimous consent. |

***TGbn editor: please make the following changes, identified by Word track changes.***

6.3 MLME SAP interface

(#M185.2)There are eight general forms of MLME-SAP interface primitives.

***TGbn editor: please insert a new section (labeled 6.3.8a below) after 6.3.8:***

6.3.8a (#M185.2)Type 8



Figure 6-8a - Type 8 form of MLME SAP primitives for request/response process over-the-DS

Figure 6-8a (Type 8 form of MLME SAP primitives for request/response process over-the-DS) depicts Type 8. The Type 8 general form is used for the exchange of the content of request/response frames between an initiating STA and a peer STA where over-the-air communication is replaced by over-the-DS communication.

The .request primitive is generated by the SME of the initiating STA to request that the contents of a request frame be sent to a peer STA over-the-DS.

The .requestFrameContentOverTheDs is generated by the MLME of the initiating STA when the .request primitive is received.

The .indicateFrameContentOverTheDs is generated by the SME of the peer STA when communication related to the .requestFrameContentOverTheDs primitive is received. This communication is out of scope of this standard, but might still be subject to certain security expectations.

The .indication primitive is generated by the MLME of the peer STA when the .indicateFrameContentOverTheDs primitive is received.

The .response primitive is generated by the SME of the peer to request that the contents of a response frame be sent to the initiating STA over-the-DS.

The .responseFrameContentOverTheDs is generated by the MLME of the peer STA when the .response primitive is received.

The .confirm FrameContentOverTheDs is generated by the SME of the initiating STA when communication related to the .responseFrameContentOverTheDs primitive is received. This communication is out of scope of this standard, but might still be subject to certain security expectations.

The .confirm primitive includes a Result Code parameter reporting success or failure of the request, and is generated by the MLME of the initiating STA when either the response communication from the peer STA is acknowledged, or the (re)transmission of the request signaling fails.

6.4 Table of MLME SAP interfaces

Table 6-1— MLME SAP interface(#1114)(#7082)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Service Name | MLME-XXX | Type | References | Comments |
| (#M185.1)Multi-AP Coordination Over-the-Air | MULTIAPCOORD-OVERTHEAIR | 1 | 9.6.35a.2 MAPC (Request frame format) and 9.6.35a.3 (MAPC Response frame format) | See 37.7 (Multi-AP Coordination framework) |
| (#M185.2)Multi-AP Coordination Over-the-DS  | MULTIAPCOORD-OVERTHEDS | 8 | 9.6.35a.2 MAPC (Request frame format) and 9.6.35a.3 (MAPC Response frame format) | See 37.7 (Multi-AP Coordination framework) |

9.4.1.11 Action field

Table 9-81—Category values

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Code | Meaning | See subclause | Robust  | Group addressed privacy |
| (#M185.1)<ANA> | UHR | 9.6.35a (UHR Action frame details) | Yes | No |

***TGbn editor: please insert a new section (labeled 9.6.35a below) after 9.6.3.35:***

9.6.35a (#M185.1)UHR Action frame details

9.6.35a.1 (#M185.1)UHR Action field

(#M185.1)TBD Action frame formats are defined to support UHR functionalities. The UHR Action field, in the octet field immediately after the Category field, differentiates the formats. The UHR Action field values associated with each frame format are defined in Table TBD.

9.6.35a.2 (#M185.1)MAPC Request frame format

TBD

9.6.35a.3 (#M185.1)MAPC Response frame format

TBD