IEEE P802.11
Wireless LANs

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| ML IE in Authentication frame (to carry MLD MAC address) |
| Date: 2020-08-20 |
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Abstract

This document provides draft spec text to address TBDs in TGbe draft D0.1.

Revisions:

* Rev 0: Initial version of the document.

**Proposed spec text:**

The baseline for this text is 802.11be D0.1

**Discussion:**

A STA of an MLD is required to provide the MLD MAC address when it supports certain authentication schemes (such as SAE). There are a few TBDs in the D0.1 spec on how this information is signaled during ML discovery and/or ML setup. This contribution addresses the TBDs in D0.1 by proposing to include Multi-Link element in the Authentication frame and harmonizing the signalling across MGMT frames that carry this information. This will make the signaling consistent with ML discovery and ML Setup procedure where the MLD MAC address is carried in the Multi-Link element.

* Authentication frame format

***TGbe editor: Please add a new row as follows***

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| Table 9-40 – Authentication frame body |
| Order | **Information** | **Notes** |
| <ANA> | Multi-Link | The Multi-Link element is optionally present if the STA is affiliated with an MLD and the frame exchange is with a peer STA that is affiliated with an MLD. Otherwise it is not present. |

* Container for multi-link information
* General

*TGbe editor: Please make add the following paragraph before the last paragraph in this subclause as shown below:*

A STA of an MLD shall follow the rules defined in 33.3.5.4 (Usage and Rules of Multi-Link element in the context of multi-link setup) for including a Multi-Link element in Authentication frame that it transmits.

In order to prevent duplication of information, an AP of an AP MLD shall not include a Reduced Neighbor Report element or a Multiple BSSID element or another Multi-Link element in the Per-STA Profile subelement of the Multi-Link element for a reported AP.

* Multi-link element usage rules in the context of discovery

*TGbe editor: Please make add the following paragraph in this subclause as shown below:*

An AP that is part of an AP MLD that supports SAE authentication shall include a Multi-Link element containing the MLD MAC address of the AP MLD with which the AP is affiliated in Beacon and Probe Response frames that it transmits.

* Usage and rules of Multi-link element in the context of multi-link setup

*TGbe editor: Please make add the following paragraph in this subclause as shown below:*

A STA affiliated with an MLD shall include a Multi-Link element containingthe MLD MAC address of the MLD with which the STA is affiliated in in the Authentication frames that it transmits.