IEEE P802.11
Wireless LANs

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| --- |
| Signaling completeness of per-STA profile in Multi-Link element |
| 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 can provide complete or partial information of another STA of the MLD in the per-STA profile of the Multi-Link element. When the profile is complete, the inheritance mechanism is applied to reduce frame bloating. The transmitting STA needs to provide clear and self contained indication on the completeness of the profile so that the receiving STA can process the information correctly. There is a TBD in the spec on how the completeness is signaled. This contribution addresses the TBD.

The doc also addresses other TBDs such as size of Link ID field and

9.4.2.247b Multi-Link element

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The format of the Per-STA Control field is defined in Figure 9-788d (Per-STA Control field format).

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  | Link ID | Complete Profile | Reserved |
| Bits: | 4 | 1 | TBD |
|  | Per-STA Control field format |

 The Link ID subfield specifies a value that uniquely identifies the link where the reported STA is operating on.

The Complete Profile subfield is set to 1 when the Per-STA Profile subelement of the Multi-Link element is complete as defined in 35.3.2.2 (Complete or partial per-STA profile). Otherwise the subfield is set to 0.

Other subfields are TBD.

**35.3.2.2** **Complete or partial per-STA profile**

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A STA of an MLD may provide complete or partial information of another STA of its MLD in the Per-STA Profile subelement of the Multi-Link element that it transmits. The exact set of elements/fields that constitute partial information is TBD.

A STA of an MLD shall set the Complete Profile subfield of the Per-STA Control field to 1 in the Per-STA Profile subfield if the Per-STA Profile subelement carries all the elements that would be included if the reported STA were to transmit the frame that carried the Multi-Link element. Otherwise the STA shall set the subfield to 0.

An AP of an AP MLD may include complete or partial profile of another AP of its MLD in ML Probe Response frame by following the rules defined in 35.3.4.2 (MLD Probing).

An AP of an AP MLD shall include complete profile of another AP of its MLD in its (Re-)Association Response frame by following the rules defined in 35.3.5.4 (Usage and Rules of Multi-Link element in the context of multi-link setup).

A STA of a non-AP MLD shall include complete profile of another STA of its MLD in its (Re-)Association Request frame by following the rules defined in 35.3.5.4 (Usage and Rules of Multi-Link element in the context of multi-link setup).

**35.3.2.3 Inheritance in a per-STA profile**

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Figure 35-1 – Illustration of Multi-Link element carrying a complete per-STA profile

***TGbe editor: doc 11-20/1288r2 provides the Visio file for the above Figure 35-1***