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| Proposed spec texts for AID anonymization |
| Date: 2024-10-25 |
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Abstract

This submission proposes spec text to address the need for AID anonymization, as per proposal in 1105r1

Revision History:

* Rev 0: Initial version of the document

***Discussion:***

This document is intended to be used with 24/1105r1.

***Editing instructions formatted like this are intended to be copied into the TGbi Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***Modify Table 9-130 (Element IDs) as follows:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Element | Element ID | Element ID Extension | Extensible | Fragmentable |
| ...... |  |  |  |  |
| AID Vector element | 255 | <ANA> | Yes | Yes |
| ... |  |  |  |  |
| NOTE—See 10.28.6 (Element parsing) on the parsing of elements. |

* Element IDs

***Insert the following new subclauses at the end of 9.4.2:***

**9.4.2.339 AID vector element**

The AID vector element contains the sequence of AID values that the receiving EDP STA must use in a sequence of contiguous EDP epochs.

The format of the AID Vector Element is shown in figure 9-X

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | Element ID | Length | Element ID extension | Start Epoch (SE) | AID Vector Value |
| Octets: | 1 | 1 | 1 | 2 | variable |

**Figure 9-X AID Vector Element**

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

The Start Epoch (SE) field, is encoded in 2 octets and represents the offset to the current EDP epoch where the AID Vector Value must be used. As an example, to indicate the next EDP epoch, the Start Epoch (SE) field has a value of 1.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | Number of Epochs (NE) | AID for SE | AID for SE +1 | … | AID for SE+NE-1 | Padding |
| Bits: | 16 | 12 | 12 |   | 12 | 0 or 4 |

**Figure 9-Y AID Vector Value Field**

The format of the AID Vector Value Field is shown in fig 9-Y.

The Number of Epochs (NE) indicates the number of consecutive epochs for which AIDs are provided. The AID for each epoch is encoded as 12 bits each, for NE epochs. A final padding may be present to align the field to octet limits.

***Insert the following new subclauses at the end of 10.7.1.4:***

**10.7.1.4.5 AID anonymization**

Upon CPE non-AP MLD STA association, the CPE AP MLD generates a vector of AIDs that the non-AP MLD STA must use in the subsequent NE epochs.

The CPE AP MLD then sends a protected action frame with the AID vector element that encodes such vector.

The receiving CPE non-AP STA and the AP uses the AIDs in the AID vector element for any communications within the subsequent NE epochs.

Before the end of the NE epochs, the CPE AP MLD generates a new vector of AIDs and sends a new protected action frame with the new AID vector element to the non-AP CPE STA. Such mechanism is repeated periodically.

The CPE AP MLD may, at any point of time, generate a new AID vector and send it to the non-AP CPE STA. If the SE field of the AID vector indicates an epoch for which an AID has been already assigned, the AID vector overrides the previously assigned AIDs beginning from the SE indicated by the last received AID vector element.