IEEE P802.11
Wireless LANs

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| Proposed Resolution of TGbh CIDs 250, 252, 256 |
| Date: 2023-11-10 |
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Abstract

Proposed resolutions for the comments to the first WG LB of 802.11bh D1.0 to CIDs: 250, 252, 256 are provided.

| **CID** | **TEG** | **Clause** | **P** | **L** | **Comment** | **Resolution** | **Proposed**  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 250 | T | [12.7.6.1](https://protect-us.mimecast.com/s/nh_tCG6N7ncJBym9CKZDKD?domain=12.7.6.1) | 35 | 15 | Is the Device ID KDE provided by the Supplicant or is it provided by non-AP STA?  Does the Authenticator receive the Device ID KDE or does the AP receive it and remove it before the message is sent to the Authenticator?  Note the Supplicant has a STA, but it is not a STA and the Authenticator has an AP STA, but it is not an AP STA. How this all works could be better specified. The commentor believes that the 4-way handshake is between the AP and non-AP STA and not between the Supplicant and Authenticator. Hence the Device ID KDE is also exchanged between the AP and non-AP STA. | Clarify which entities are exchanging the Device ID KDE and in which messages it is contained. Also it would be helpful to clarify which entity creates the ID and receives the ID. | RejectedThe entities that exchange the device ID are clearly provided in clause 12.2.11. |
| 252 | T | 12.2.11 | 30 | 13 | It is not clear that the use of device ID is an opt-in feature.  It should be clear that a non-AP STA must choose to activate device ID and that it can only use device ID if the AP also supports device ID.  Additionally it should be clear that the exchange of device ID occurs during a 4-Way handshake after a non-AP STA has completed its Association (State 3). Also the informative statement that the exchange of device ID is protected from third parties is not necessary in this paragraph. | With: "A user may choose to use device ID to identify themselves to a AP or network. When device ID is used an AP may provide a device ID to an associated non-AP STA during the 4-way handshake.  The device ID provided by an AP in an ESS may be used by the non-AP STA to identify itself to any AP in the ESS when preforming a 4-way handshake. | RevisedIncorporate the changes shown in 11-23/2018r1k for CID 252. |
| 256 | T | 12 | 30 |  | There is no statement that an AP must share the non-AP STAs ID with the DS or what mechanism is to share the non-AP STA ID with all the APs in an ESS. Also how the AP protects the non-AP STAs ID from third parties when it shares the ID with the other APs in the ESS is not discussed. | Provide clarity and any required behaviour to share the non-AP STA ID with APs within and ESS.  Or if the ID is only meaningful to the DS and not the individual AP then clarify how the AP provides the DS with the ID and if appropriate how the DS is providing the ID to the AP for then non-AP STA. | RevisedIncorporate the changes shown in 11-23/2018r1k for CID 256. |

**CID 252:**

Rename clause 12.2.11

from “Changing MAC Address” to “Device ID and IRM”

**Replace:**

To mitigate tracking and traffic analysis, a non-AP STA may randomly change its MAC address (see 4.5.4.10

(MAC privacy enhancements)). For some services, however, it may be desired by the user that the non-AP

STA is identified by an AP and network services.

An AP may provide a device ID to a non-AP STA to allow any AP in the AP’s ESS to recognize the non-AP

STA when it returns to that ESS even if the non-AP STA changes its MAC address. The non-AP STA may

provide that device ID to any AP in the same ESS upon a new association. Exchanges of the device ID are

protected from third parties.

**With:**

For a STA with dot11MACPrivacyActivated is true (see 12.2.11), a user may choose to use device ID to identify themselves to an AP or network. When device ID is used an AP may provide a device ID to a non-AP STA during the 4-way handshake. The device ID provided by an AP in an ESS may be used by the non-AP STA to identify itself to any AP in the ESS upon association when preforming a 4-way handshake, when using PASN authentication, or when using FILS authentication. Exchanges of the device ID are protected from third parties.

**CID 256**

Append the following sentence as shown on page 30, line 53.

An AP shall send a device ID when required by the procedures described below via the following frames

(known as “AP Identity frames”):

1) When using PASN authentication in the Device ID element in the second PASN frame.

2) When using FILS authentication in the Device ID element in the (Re)Association Response frame.

3) When not using FILS authentication, in the Device ID KDE in message 3 of the 4 way handshake.

An AP providing a device ID to a non-AP STA shall inform all the APs in the AP’s ESS of the device ID and the associated shared identity state of the non-AP STA.

**References:**