IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CID Resolutions IRM - 2 | | | | |
| Date: 2023 - August | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Graham SMITH | SR Technology | Sunrise, FL, USA. | 916 799 9563 | gsmith@srtrl.com |

Abstract

Proposed resolutions on D1.0 related to IRM scheme.

107, 129, 192, 195, 200, 201, 203, 236, 237, 260, 266

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CID | Page | Line | Comment | Proposed | Resolution |
| 107 | 32 | 39 | The sentences in this paragraph look to be out of order in terms of the negotiation. I would assume that the AP would advertised Device ID/IRM in the RSNXE. The STA would discover the capability, and then include the elements in the (re-)association reque | Replace the cited paragraph with the following: "An AP advertises support for IRM by setting the IRM Active field to 1 in the Extended RSN Capabilities field of the RSNXE in Beacon, and Probe Response frames. A non-AP STA indicates activation of IRM for a particular ESS by setting the IRM Active field to 1 in the Extended RSN Capabilities field (see 9.4.2.241 (RSNXE)) in (Re)Association Request frames or the first PASN frame (when using PASN) sent to any AP in the ESS. An AP indicates activation of IRM by setting the IRM Active field to 1 in the Extended RSN Capabilities field in (Re)Association Response, or in the second PASN frame (when using PASN)." | See end of this document. |
| 129 | 33 | 32 | ANQP information is exchanged using elements and not frames. I think reference to GAS would be better than ANQP. There's also a missing article. | Change "e.g., ANQP frame" to "e.g., a GAS frame" | ACCEPT |
| 192 | 32 | 47 | "during the RSN association" -- RSN is implicit. Also "during" is not clear | Change to "at association" | ACCEPT |
| 195 | 32 | 62 | "an identifier for use with that AP/ESS" -- well, which is it -- does it have ESS scope or just AP scope? | Clarify | REVISE  Incorporat the text for CID 195 in this document.  (see end of document) |
| 200 | 33 | 27 | "direct or broadcast probing" -- these terms are not defined | Change to "active scanning" | ACCEPT |
| 201 | 33 | 30 | "within range of the WM" -- the WM covers the entire universe so is necessarily within range | Change to "within the BSA" or "within range of the AP" | REVISE  Change to  "within range of the AP" |
| 203 | 33 | 35 | "State 1 and State 2" -- presumably this is referring to the auth/assoc/security state, but this is not clear | Give xref to 11.3 | REVISE  After “In State 1 and State 2” Add “ (see 11.3.1 State Variables)”  Note: CID 28 changed the text of this Note, but this intro is untouched. |
| 236 | 30 | 55 | Incorrect verb form: "or using PASN" should be "or used PASN" | Replace with "A non-AP STA that is associating with any AP in an ESS or that is using PASN with any AP in an ESS, when Device ID is active for both the non-AP STA and the AP and the non-AP STA has not previously associated or used PASN with any AP in the ESS, shall not send a device ID in the non-AP STA Identity frame." | ACCEPT  Change “using” to “used”  See end of document |
| 260 | 33 | 22 | The term "returning non-AP STA" is not defined or explained. | Delete "returning". | ACCEPT  “A non-AP STA should generate the IRM MAC addresses on a random basis such that a ~~returning~~  non-AP STA cannot be identified by a third party from the TA it is using.” |
| 266 | ~~42~~33 | 36 | Note 3 call out "to ensure good STA privacy". Not sure what "good STA privacy" implies. Should consider changing "good" to "optimal" | As commented | REVISE  Delete “good”  CID 28 changed text:  “In State 1 and State 2, the IRM MAC address is recommended to be used only in authentication and (re)association frames, respectively. **To ~~ensure~~ provide ~~good~~ STA privacy**, a non-AP STA is recommended to change its IRM MAC Address in each association or PASN preassociation.” |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CID 107

Propose REVISE

At 32.39, replace the cited paragraph

“A non-AP STA indicates activation of IRM for a particular ESS by setting the IRM Active field to 1 in the Extended RSN Capabilities field (see 9.4.2.241 (RSNXE) in (Re)Association Request frames sent to any AP in the ESS. An AP indicates activation of IRM by setting the IRM Active field to 1 in the Extended RSN Capabilities field in Beacon, (Re)Association Response, and Probe Response frames. All APs in each ESS shall set this field to the same value.”

with:

"An AP advertises support for IRM by setting the IRM Active field to 1 in the Extended RSN Capabilities field of the RSNXE in Beacon, and Probe Response frames. A non-AP STA indicates activation of IRM for a particular ESS by setting the IRM Active field to 1 in the Extended RSN Capabilities field (see 9.4.2.241 (RSNXE)) in (Re)Association Request frames or the first PASN frame (when using PASN) sent to any AP in the ESS. An AP indicates activation of IRM by setting the IRM Active field to 1 in the Extended RSN Capabilities field in (Re)Association Response, or in the second PASN frame (when using PASN). All APs in each ESS shall set these fields to the same value. "

CID 195

“well, which is it -- does it have ESS scope or just AP scope?”

**REVISE**

**Replace**

The non-AP STA should store the newly allocated IRM MAC address as an identifier for use with that AP/ESS and the AP/ESS should store that IRM MAC address as an identifier for that non-AP STA.

**With**

The non-AP STA should store the newly allocated IRM MAC address as an identifier for use with that AP~~/ESS~~ and, if that AP is part of an ESS, as an identifier for all APs in that ESS and the AP(s) should store that IRM MAC address as an identifier for that non-AP STA.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CID 236**

ACCEPT

Original

A non-AP STA that is associating with any AP in an ESS or that is using PASN with any AP in an ESS, when Device ID is active for both the non-AP STA and the AP and the non-AP STA has not previously associated or using PASN with any AP in the ESS, shall not send a device ID in the non-AP STA Identity frame

Proposed

A non-AP STA that is associating with any AP in an ESS or that is using PASN with any AP in an ESS, when Device ID is active for both the non-AP STA and the AP and the non-AP STA has not previously associated or ~~using~~ used PASN with any AP in the ESS, shall not send a device ID in the non-AP STA Identity frame."