IEEE P802.11
Wireless LANs

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| Resolution to CID 7054 |
| Date: 2015-03-12 |
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Abstract

This document provides proposed changes to resolve CID 7054.

D0 contains the current text in 802.11mc D4.0 and the difference between 802.11ai D4.0 and 802.11mc D4.0.

D1 contains the proposed resolution to CID7054 after discussions in the 802.11ai group.

**CID 7054**

Multiple issues here:1) text does not show exactly the baseline to be changed (REVmc D4.0).2) comparing to REVmc D4.0 shows that this is not purely editoral but additional changes have to be made. E.g. REVmc D4.0 talks in the first paragraph about responses individually addressed to the STA sending the probe request which we do not want to do.

Proposed change:

REVISED.

The target is not to delete essential information from the 802.11mc. 802.11ai returns the information that it has deleted and ensures good compatibility with the 802.11mc.

The resolution first contains the proposed resolution text, then 802.11mc D4.0 is provided and lastly the differences between 802.11ai D4.0 and 802.11mc D4.0 are shown.

***Instructions to the Editors: Make the following changes shown below:***

**10.1.4.3.5 Contents of a ~~probe~~ response**

The missing text from Revmc:

A STA that responds to a Probe Request frame according to 10.1.4.3.4 (Criteria for sending a probe response) shall transmit a Probe Response frame or a Beacon frame as follows:

— Each element that is listed by a non-FILS STA in a Request element and that is supported by the STA shall be included in the Probe Response frame.Each element requested by a FILS STA in a Request element shall be included in the Probe Response or a Beacon frame if the responding FILS STA supports that element~~. . These elements shall be returned in the same order as listed in the Request element.~~ An element that is listed in the Request element and that is not supported by the STA shall not be included. [CID7054]

* Elements that would not have been included otherwise shall be included after all of the elements that would have been included even in the absence of the Request element. [CID7054]
* Elements that would have been included even in the absence of the Request element shall be included in their normal position (see Table 8-27(Beacon frame body) and 8-34 (Probe Response frame body)),and may be included again after all of the elements that would have been included even in the absence of the Request element.

NOTE—An element that would necessarily be included anyway is not expected to be requested. [CID7054]

* Elements after all of the elements that would have been included even in the absence of the Request element shall be included in the same order as in the Request element. [CID7054]
* If dot11RadioMeasurementActivated is true and ~~if the Request element of the Probe Request includes the RCPI element ID, the STA shall include in the Probe Response an RCPI element containing the measured RCPI value of the received Probe Request frame.~~ [CID7054]]the RCPI element was requested, an RCPI element containing the RCPI of the Probe Request frame shall be included. If no measurement result is available, the RCPI value shall be set to indicate that a measurement is not available (see 8.4.2.37 (RCPI element) and Table 16-9 (RCPI values)). [CID7054]

## Background info:

### The original text from Revmc D4.0:

**10.1.4.3.5 Contents of a probe response**

A STA that responds to a Probe Request frameaccording to 10.1.4.3.4 (Criteria for sending a probe response) shall transmit a Probe Response frame individually addressed to the STA that transmitted the Probe Request frame.If there was a Request element in the Probe Request frame, then:

— Each element that is listed in the Request element and that is supported by the STA shall be included in the Probe Response frame. An element that is listed in the Request element and that is not supported by the STA shall not be included.

— Elements that would not have been included otherwise shall be included after all of the elements that would have been included even in the absence of the Request element.

— Elements that would have been included even in the absence of the Request element shall be included in their normal position (see Table 8-34 (Probe Response frame body)), and may be included again after all of the elements that would have been included even in the absence of the Request element.

NOTE—An element that would necessarily be included anyway is not expected to be requested.

— Elements after all of the elements that would have been included even in the absence of the Request element shall be included in the same order as in the Request element.

— If dot11RadioMeasurementActivated is true and the RCPI element was requested, an RCPI element containing the RCPI of the Probe Request frame shall be included. If no measurement result is available, the RCPI value shall be set to indicate that a measurement is not available (see 8.4.2.37 (RCPI element) and Table 16-9 (RCPI values)).

### The difference between Revmc D4.0 and 802.11ai D4.0:

*Notes to Editor:*

*The text with color are the changes needed for correcting the base text to Revmc Draft 4.0, no technical changes made compareing to the text in TGai Draft 4.0.*

*The* ~~blue text with delete line~~ *is used to indicate the text should be deleted compared to Revmc D4.0.*

*The* red text with underline *is used to indicate the text should be added compared to Revmc D4.0.*

*The* read text with no underline *is used to indicate the missing text from Revmc D4.0.*

**10.1.4.3.5 Contents of a probe response**

The missing text from Revmc:

A STA that responds to a Probe Request frame according to 10.1.4.3.4 (Criteria for sending a probe response) shall transmit a Probe Response frame or a Beacon frame as follows:

* ~~individually addressed to the STA that transmitted the Probe Request frame. If there was a Request element in the Probe Request frame, then:~~A FILS STA that transmits a Probe Response frame shall either set the Address 1 field to the address of the STA that generated the probe request or shall set it to the broadcast address if the STA that generated the probe request indicated FILS Capability. A non-FILS STA that transmits a Probe Response frame shall set the Address 1 field to the address of the STA that generated the probe request.
* If a FILS STA and if the FILS Request Parameters of the Probe Request includes the Reduced Neighbor Report Request element ID, a Probe Response frame or a Beacon frame if transmitted may include the Reduced Neighbor Report element if the criteria as defined in 10.1.4.3.4 (Criteria for sending a probe response) are met for the included BSS. The reported BSSs may have different primary channels to the responding STA.
* A STA in which dot11InterworkingServiceActivated is true may include in the Probe Response frame, a CAG Number element containing the current sequence number of the AP’s CAG configuration information.
* Each element that is listed by a non-FILS STA in ~~the~~ a Request element and that is supported by the STA shall be included in the Probe Response frame.Each element requested by a FILS STA in a Request element shall be included in the Probe Response or a Beacon frame if the responding FILS STA supports that element. These elements shall be returned in the same order as listed in the Request element. ~~An element that is listed in the Request element and that is not supported by the STA shall not be included~~.
* ~~Elements that would not have been included otherwise shall be included after all of the elements that would have been included even in the absence of the Request element.~~
* ~~Elements that would have been included even in the absence of the Request element shall be included in their normal position (see Table 8-34 (Probe Response frame body)), and may be included again after all of the elements that would have been included even in the absence of the Request element.~~

~~NOTE—An element that would necessarily be included anyway is not expected to be requested.~~

* ~~Elements after all of the elements that would have been included even in the absence of the Request element shall be included in the same order as in the Request element.~~
* If dot11RadioMeasurementActivated is true and if the Request element of the Probe Request includes the RCPI element ID, the STA shall include in the Probe Response an RCPI element containing the measured RCPI value of the received Probe Request frame. ~~the RCPI element was requested, an RCPI element containing the RCPI of the Probe Request frame shall be included~~. If no measurement result is available, the RCPI value shall be set to indicate that a measurement is not available (see 8.4.2.37 (RCPI element) and Table 16-9 (RCPI values)).