IEEE P802.11  
Wireless LANs

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| CID 2781 | | | | |
| Date: 2014-01-22 | | | | |
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Abstract

The submission 11-13-1497r4 provides resolution to the CID 2781 which was accepted to the 802.11ai draft. The resolution of the CID 2781 got comments on the 802.11ai reflector. This submission is requesting a change to the resolution of the CID2781.

**CID 2781**

**Comment:** it is not clear what's the expected operation of the AP in case a Neighbor Report is requested and the next TBTT is within the dot11BeaconResponseDuration. Does the STA receives the Neighbor Report or does the AP use the Beacon and as a result the reduced neighbor report is missing from AP response.

**Proposed Change:** Clarify that inclusion of a reduced neighbor report in the Probe Req overides the usage of Beacon as a replacemnt for Probe Rsp.

**Currently accepted resolution of the CID2781:**

REVISED.Change the text in 10.1.4.3.4 Sending a response to probe request as shown:”

Requested Element IDs in the Request element shall be included in the Probe Response or Beacon if the responding STA supports it. An additional Probe Response shall be transmitted if the transmitted Beacon did not include the Requested element. In an improperly formed Request element, a STA may ignore the first element requested that is not ordered properly and all subsequent elements requested. In the probe response frame, the STA shall return the requested elements in the same order as requested in the Request element.

If dot11FILSActivated equal to true and if the Request element of the Probe Request includes the Reduced Neighbor Report Request element ID, the Probe Response or Beacon frame ~~may~~ shall include the Reduced Neighbor Report element if the criteria as defined in 10.1.4.3.3 are met for the included BSS. ~~A Reduced Neighbor Report element is included in the Probe Response frame for each BSS of which information is available.~~ The reported BSSs may have different primary channels to the responding STA.”

**Discussion provided by Yunsong Yang, Huawei:**

I appreciate the benefits of providing reduced neighbor report to STAs when requested.  However, I think this “shall” is not correct nor re-enforceable.  First, how APs are configured to recognize their neighbors or keep their neighbor’s information is implementation dependent.  An AP may well be configured to ignore its neighbors.  Therefore, an AP should be allowed not to report any neighbors.  Secondly, when an AP truly has no neighbors, forcing the AP to include a Reduced Neighbor Report element would result a conflict with the currently format of this element as the Reduced Neighbor Report element currently contains at least one neighbor’s information (no option to report none).  So, we have to allow an AP not to include the RNR element when it has no neighbor to report.  This will make the “shall” not re-enforceable.

**Recommended resolution of the CID2781:**

Note to the Editor. This changes resolution text to the accepted resolution text of the CID2784 is highlighted.

REVISED.Change the text in 10.1.4.3.4 Sending a response to probe request as shown:”

Requested Element IDs in the Request element shall be included in the Probe Response or Beacon if the responding STA supports it. An additional Probe Response shall be transmitted if the transmitted Beacon did not include the Requested element. In an improperly formed Request element, a STA may ignore the first element requested that is not ordered properly and all subsequent elements requested. In the probe response frame, the STA shall return the requested elements in the same order as requested in the Request element.

If dot11FILSActivated equal to true and if the Request element of the Probe Request includes the Reduced Neighbor Report Request element ID, the Probe Response or Beacon frame may include the Reduced Neighbor Report element if the criteria as defined in 10.1.4.3.3 are met for the included BSS. ~~A Reduced Neighbor Report element is included in the Probe Response frame for each BSS of which information is available.~~ The reported BSSs may have different primary channels to the responding STA.”