IEEE P802.11 Wireless LANs

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| P802.11ai Draft 0.4 New Comment and Proposed Resolution |
| Date:2013-03-15 |
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Abstract

This submission raised a comment on P802.11ai Draft 0.4 and proposed a resolution for it.

# Introduction

In November 2012 meeting, TGai finally passed the motion in contribution 11-12-1114r6 after the phrase of “AP shall” was changed to “AP should” in two places.  This is an indication that the support of AP-CCC feature is optional at an 11ai-capable AP. This is also consistent with the following:

* in P802.11ai Draft 0.4, Section 8.3.3.10, Page 18, line 25, it is stated in Table 8-27 that “The AP Configuration Change Count element is optionally present if dot11FILSActivated is true”.
* there is an AP-CCC presence indicator bit in the FC field in FD frame to indicate the absence or presence of the optional AP-CCC field in the FD frame.

However, in P802.11ai Draft 0.4, Section 10.1.4.3.8, Page 52, line 8, it is stated that “The AP with dot11FILSActivated equals to true shall retain AP Configuration Count (CCC) List which consists of …”.

In Section 3, we argued that this “shall” requirement for retaining AP CCC List at the AP is inconsistent with the optional nature of AP-CCC feature and presents an unnecessary burden for an 11ai-capable AP that doesn’t support AP-CCC.

In Section 4, we proposed a resolution with text changes made to P802.11ai Draft 0.4.

# Conventions

In this contribution, the proposed 802.11ai Specification Document text will be presented as modifications to the TGai draft specification 802.11ai/D0.4[Ref-3]. The following format conventions are used:

1. The new added text is marked as blue underline text;
2. The deleted text is marked as~~red strikethrough text~~;
3. The unchanged baseline standard text stays in black text in the context of proposed TGai specification text;
4. The editorial instruction is marked as *italic text highlighted by Yellow*;
5. The quoted TGai SFD text is marked as *green italic text*; and
6. Any other text, e.g., discussions, proposed motions, etc., is in black text, but not in the context of proposed TGai specification text.

# Discussions

We believe that if an 11ai-capable AP doesn’t support AP-CCC feature, there is no need for this AP to retain its CCC list. Under the normal condition, no 11ai-capable STA will send a Probe Request with CCC IE to this AP. But even in case that an 11ai-capable STA sends a Probe Request with CCC IE to this AP, e.g. by mistake, this AP considers the CCC is invalid, thus sends a regular Probe Response. This AP behaviour is captured by P802.11ai Draft 0.4, Page 52, Section 10.1.4.3.8, lines 29-32.

We further believe that the presence of CCC IE in the Beacon or Probe Response frame that an AP sends is a sufficient indication that the AP supports the AP-CCC feature. Thus, no additional AP capability indication is needed regarding this. The presence of CCC IE in the Probe Request frame that a STA sends is also a sufficient indication that the STA supports the AP-CCC feature. Thus, no additional STA capability indication is needed regarding this.

Therefore, retaining AP CCC List should not be a mandatory requirement on an 11ai-capable AP that doesn’t support AP-CCC feature.

# Proposed 802.11ai Specification Text

*Instructions to Editor: in Section 10.1.4.3.8, page 52, make the following changes to line 8:*

The AP with dot11FILSActivated equals to true should retain AP Configuration Count (CCC) List

# Straw-Polls and Motions

**Motion-1:**Accept the text proposed in Section 4 as the resolution to the comment raised in this contribution.

Yes: \_\_\_\_\_\_\_\_\_\_\_\_; No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; Abstain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Move:

Second:

# References:

1. 11-12-1114-06-00ai-tgai-specification-text-for-enhanced-active-scanning-procedure-for-fils
2. IEEE Std 802.11ai/D0.4