IEEE P802.11 Wireless LANs

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| Suggested resolution for submitted TGai comment 1029 (Specification text for FILS Capability field) |
| Date:2013-05-16 |
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Abstract

This submission proposes the 802.11ai specification text for FILS Capability field, as a suggested resolution to a comment submitted for IEEE 802.11 Comment Collection 8 for 802.11ai Draft 0.5[Ref-2].

# Introduction

The 802.11ai Draft 0.5 only describes the FILS Indication of the AP. Thus, I propose the FILS Capability Indication of the STA. Reason is as follows:

* If the AP doesn’t know the STA’s Capability (i.e., FILS STA or Non-FILS STA), AP can not transmit the broadcast addressed Probe Response frame. Because the legacy STA may not decode the broadcast addressed Probe Response frame which is transmitted by FILS AP.
* FILS Request parameter element, Probe Response Reception Time element is optional parameter. Thus, although FILS AP receives the Probe Request frame from the FILS STA, it can not know whether the STA is FILS STA or not.
* Thus, it is needed to add the FILS Capability of the STA into the Extneded Capabilities element.

# Conventions

In this contribution, the proposed 802.11ai Specification Document text will be presented as changes to the current TGai draft specification, 11ai/D0.5 [Ref-2]. 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*; and
5. Any other text, e.g., discussions, proposed motions, etc., is in black text, but not in the context of proposed TGai specification text.

# Proposed 802.11ai Specification Text

*Instructions to Editor: Add the following subsection 8.4.2.29 Extended Capabilities element in the line 15 on page 30 and add the new subfield in the table 8-103 Capabilities field as follows:*

**8.4.2.29 Extended Capabilities element**

Table 8-103 Capabilities field

|  |  |  |
| --- | --- | --- |
| **Bit** | **Information** | **Notes** |
| 48 | UTF-8 SSID | The SSID in this BSS is interpreted using UTF-8 encoding |
| 49 | FILS capability | When dot11FILSActivated is true, the FILS capability field is set to 1 to indicate the non-AP STA supporting the fast initial link setup. |
| ~~49~~50-n | Reserved |  |

# References:

1. IEEE Std 802.11 – 2012
2. IEEE Std 802.11ai/D0.5