IEEE P802.11  
Wireless LANs

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| Resolutions to CIDs 6723 and 6756 | | | | |
| Date: 2015-01-15 | | | | |
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Abstract

The submission contains resolutions to 2 CIDs.

CID6723

**Comment:**

CID 4717's resolution is "REJECTED. The clause 4 does not specify anything on scanning, so the scanning enhancements made by FILS are not making any changes to clause 4. The additions made by 802.11ai are written to authentication and deauthentication services, because these parts are modified by the 802.11ai. The overall scanning introduction is provided in the clause 10.". However, clause 4 does mention scanning, e.g. "For details of how a STA learns about what APs are present, see 10.1.4 (Acquiring synchronization, scanning)." Furthermore, FILS makes other non-security changes, such as those to do with association and DILS, and association is definitely covered in clause 4.

**Proposed Change:**

Address CID 4717 properly

**Discussion**

The clause 4 should contain some text to introduce the FILS capabilities.

One option to introduce the services is to modify the clause 4.5.3.3 Association. The clause talks about discovery and association. The FILS capability is related to these services.

**Proposed Resolution:**

REVISED.

Change the 4.5.3.3 as shown below:"

**4.5.3.3 Association**

To deliver an MSDU(#2285) within a DS, the distribution service needs to know which AP to access for the given IEEE Std(#130) 802.11 STA. This information is provided to the DS by the concept of association. Association is necessary, but not sufficient, to support BSS-transition mobility. Association is sufficient to support no-transition mobility. Association is one of the services in the DSS.

Before a STA is allowed to send an MSDU(#2285) via an AP, it first becomes associated with the AP. The FILS AP can prioritize which STAs are allowed to associate.The act of becoming associated invokes the association service, which provides the STA to AP mapping to the DS. (#2285) How the information provided by the association service is stored and managed within the DS is not specified by this standard.

Within a robust security network (RSN), association is handled differently. In an RSNA, the IEEE Std(#130) 802.1X Port determines when to allow data traffic across an IEEE Std(#130) 802.11 link. A single IEEE Std(#130) 802.1X Port maps to one association, and each association maps to an IEEE Std(#130) 802.1X Port. An IEEE Std(#130) 802.1X Port consists of an IEEE Std(#130) 802.1X Controlled Port and an IEEE Std(#130) 802.1X Uncontrolled Port. The IEEE Std(#130) 802.1X Controlled Port is blocked from passing general data traffic between two STAs until an IEEE Std(#130) 802.1X authentication procedure completes successfully over the IEEE Std(#130) 802.1X Uncontrolled Port. Once the AKM completes successfully, data protection is enabled to prevent unauthorized access, and the IEEE Std(#130) 802.1X Controlled Port unblocks to allow protected data traffic. IEEE Std(#130) 802.1X Supplicants and Authenticators exchange protocol information via the IEEE Std(#130) 802.1X Uncontrolled Port. It is expected that most other protocol exchanges use(MDR) the IEEE Std(#130) 802.1X Controlled Ports. However, a given protocol might need to bypass the authorization function and make use of the IEEE Std(#130) 802.1X Uncontrolled Port.

NOTE—See IEEE Std 802.1X-2010(M14) for a discussion of Controlled Port and Uncontrolled Port.

At any given instant, a STA is associated with no more than one AP. This allows the DS to determine a unique answer to the question, “Which AP is serving STA X?” Once an association is completed, a STA can(#2286) make full use of a DS (via the AP) to communicate. Association is always initiated by the non-AP(#1408) STA, not the AP.

An AP might(#2287) be associated with many STAs at the same(#2287) time.

A STA learns what APs are present and what operational capabilities are available from each of those APs and then invokes the association service to establish an association. The FILS STA is able to discover, authenticate and associate with the AP with reduced number of frame transmissions. For details of how a STA learns about what APs are present, see 10.1.4 (Acquiring synchronization, scanning).

CID6756

**Comment**: The "Probe Response Reduction" item, FILS6.2, is not clear enough. It is given as mandatory, but at least some elements of probe response reduction (e.g. dot11OmitDuplicateWotsit) are optional

**Proposed Change:** Be clearer on what this item encompasses

**Discussion:** Thecommenter has valid point, the omitreplicated probe responses is not covered in the PICS currently. There should be new PICS row for this functionality.

**Proposed Resolution:** Revised.

Modify the Status column of FILS6.2 Item. Insert new item as FILS 6.3 and renumber the following Items accordingly.

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| Item | Protocol Capability | References | Status | Support |
| FILS6.2 | Probe Response Reduction | 10.1.4.3.4 (Criteria for  sending a probe  response)  8.4.2.173 (FILS Request  Parameters element) | FILS6: M | Yes o No o N/A o |
| FILS6.3 | OmitReplicateProbeResponses | 10.1.4.3.5 (Contents of responses) | FILS6: M | Yes o No o N/A o |