IEEE P802.11  
Wireless LANs

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| --- | --- | --- | --- | --- |
| No More DILS! | | | | |
| Date: 2015-11-10 | | | | |
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|  |  |  |  |  |

Abstract

This submission proposes to resolve CIDs 10114, 10210, and 10724 by removing Differentiated Link Setup.

|  |  |  |  |
| --- | --- | --- | --- |
| CID | Comment | Proposed Change | Resolution |
| 10114 | Why would a Vendor Specific subfield be wrapped within DILS element? If a vendor wants to extend DILS type of functionality, that vendor can add a normal Vendor Specific element to the frame without having to make the DILS element design overly complex | On page 79 line 50, remove the "Vendor Specific (optional)" field from Figure 8-577w.  On page 81, delete lines 30-31 ("The Vendor Specified field...") | Revised: DILS has been removed so the complexity issue no longer remains. See https://mentor.ieee.org/802.11/dcn/15/11-15-1425-00-00ai-no-more-dils.docx |
| 10210 | DILS is a significant additional complexity in the protocol and it would be nice if that were not mandated. It looks like the current PICS FILS2.1 leaves this optional for the AP, but mandatory for the non-AP STA. I guess this was done to allow an AP an option to enforce DILS to be used. However, the following FILS2.2 item (also on DILS) seems to be mandating DILS element support on the AP, but not on the non-AP STA. That sound a bit conflicting. | On page 161 lines 51-60, replace the Status column value for both FILS2.1 and FILS2.2 with "CF32: O". | Revised: DILS has been removed so its mandated versus optional nature is no longer an issue. See https://mentor.ieee.org/802.11/dcn/15/11-15-1425-00-00ai-no-more-dils.docx |
| 10724 | What is the incentive for a non-AP STA to use DILS? | Either provide evidence that DILS is to a STA's benefit even if other STAs don't implement DILS (such a claim was made during D2.0 comment resolution -- see http://www.ieee802.org/11/email/stds-802-11-tgai/msg00810.html -- but the evidence was never provided despite repeated requests) or get rid of the DILS feature | Revised: the DILS feature has been removed so this is no longer an issue. See https://mentor.ieee.org/802.11/dcn/15/11-15-1425-00-00ai-no-more-dils.docx |

***Instruct the editor to remove row in second table in clause 6.3.3.3.2 with name “*Differentiated Initial Link Setup”**

***Instruct the editor to modify table 8-27 in section 8.3.3.2 as indicated:***

**Table 8-27—Beacon Frame Body**

|  |  |  |
| --- | --- | --- |
| Order | Information | Notes |
| 66 | Common Advertisement  Group (CAG) Number | The CAG Number element is optionally present if  dot11FILSActivated is true; otherwise not present. |
| 67 | FILS Indication | The FILS Indication element is present if dot11FILSActivated  is true; otherwise not present. |
| 68 | AP-CSN | The AP configuration sequence number (APCSN)  element is optionally present if dot11FILSActivated  is true; otherwise not present |
|  |  |  |

***Instruct the editor to modify table 8-34 in section 8.3.3.10 as indicated:***

**Table 8-34—Probe Response frame body**

|  |  |  |
| --- | --- | --- |
| Order | Information | Notes |
| 68 | CAG Number | The CAG Number element is optionally present if dot11-  FILSActivated is true ; otherwise not present. |
| 69 | AP-CSN | The AP-CSN element is optionally present if dot11FILSActivated  is true ; otherwise not present. |
| 70 | FILS Indication | The FILS Indication element is present if dot11FILSActivated  is true ; otherwise not present. |
|  |  |  |

***Instruct the editor to modify table 8-74 in section 8.4.2.1 as indicated:***

**Table 8-74—Element IDs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Element | Element ID | Element ID Extension | Extensible | Fragmentable |
| FILS Indication (see 8.4.2.178 (FILS Indication element)) | 240 | N/A | Yes | No |
|  |  |  |  |  |

***Instruct the editor to remove section 8.4.2.182 entirely and adjust numbering as required***

***Instruct the editor to modify 10.1.4.3.7 as indicated:***

**10.1.4.3.7 Enhanced FILS active scanning to preferred AP**

A FILS non-AP STA may maintain one or more BSS Configuration Parameter Sets. A BSS Configuration Parameter Set is obtained from a preferred AP by using a preferred AP determination process that is out of scope of this standard. Each BSS Configuration Parameter Set may be different according the preferred AP’s capabilities. A BSS Configuration Parameter Set is a set of elements of the Beacon frame or the Probe Response frame. The following dynamic information elements are excluded from a BSS Configuration Parameter Set.

— TIM element

— Quiet element

— BSS Load element

— EDCA Parameter element

— BSS Average Access Delay element

— BSS Available Admission Capacity element

— BSS AC Access Delay element

— Time Advertisement element

— Emergency Alert Identifier element

— Beacon Timing element

— QLoad Report element

— Extended BSS Load element

— Quiet Channel element

— Reduced Neighbor Report element (see Note 1)

— CAG Number element

— AP-CSN element

— Fragment element (see Note 2)

— Vendor Specific element

***Instruct the editor to remove section 10.47.5 in its entirety and adjust numbering as needed***

***Instruct the editor to modify table in B.4.27 as indicated:***

**B.4.27 FILS features**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Protocol Capability | References | Status | Support |
| FILS1.1 | FILS Discovery Frame | 10.47.2 (FILS Discovery frame generation and usage) | (CF1 OR CF2.1) AND CF32: M | Yes O No O N/A O |
| FILS1.2 | FILS Discovery Frame | 8.6.36 (FILS Discovery Frame format) | (CF1 OR CF2.1) AND CF32:M | Yes O No O N/A O |
|  |  |  |  |  |
|  |  |  |  |  |

***Instruct the editor to modify C.3 as indicated:***

**C.3 MIB Detail**

dot11FILSComplianceGroup OBJECT-GROUP

OBJECTS {

dot11FILSActivated,

dot11FILSFDFrameBeaconMinimumInterval,

dot11FILSBeaconResponseWindow,

dot11FILSOmitReplicateProbeResponses,

dot11FILSProbeDelay,

dot11HLPWaitTime

}

STATUS current

DESCRIPTION

"The FILS Compliance group defines those objects that provide fast initial

link setup for IEEE Std 802.11."

::= { dot11Groups 91 }

Dot11FILSConfigEntry ::=

SEQUENCE {

dot11FILSFDFrameBeaconMinimumInterval Unsigned32,

dot11FILSBeaconResponseWindow Unsigned32,

dot11FILSOmitReplicateProbeResponses TruthValue,

dot11FILSProbeDelay Unsigned32,

dot11HLPWaitTime Unsigned32

}

*Editorial note to the editor: the MIB entry following dot11DILSImplemented is also indicated as 4 in the dot11FILSConfigEntry so no further editing is needed. This error will be fixed by removing dot11DILSImplemented.***References:**