IEEE P802.11
Wireless LANs

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|  |  |  |  |  |

Abstract

***Modify the section as follow***

***8.4.2.180 FILS HLP Container element***

The FILS HLP Container element contains higher layer protocol (HLP) frames transported during FILS association. One or more FILS HLP Container elements maymight be included in an Association Request, a Reassociation Request, an Association Response, or a Reassociation Response frames if dot11FILSActivated is true. This element is used for Higher Layer Protocol Packet Encapsulation (10.44.3.1 (Higher Layer Protocol Packet Encapsulation)).The format of the FILS HLP Container element is shown in Figure 8-401cy (FILS HLP Container element format).

***Modify the section as follow***

* FILS IP Address Assignment element

FILS IP Address Assignment element is used by STA to request and to assign IP address using FILS IP Address Configuration  10.44.3.2 (FILS IP Address Configuration). FILS IP Address Assignment element may be sent in an Association Request, an Association Response, a Reassociation Request, a Reassociation Response or a FILS Container Action frame if dot11FILSActivated is true. The format of the FILS IP Address Assignment element is shown in Figure 8-401cz (FILS IP Address Assignment element format).

|  |  |  |  |
| --- | --- | --- | --- |
|  | Element ID | Length | IP Address Data |
| Octets: | 1 | 1 | Variable |
| * FILS IP Address Assignment element format
 |

The Element ID field is equal to the FILS IP Address Assignment element value in Table 8-61 (Element IDs).

The value of the Length field is the number of octets of IP Address Data field.

The value of the IP Address Data field in Association/Reassociation Request frame and FILS Container Action frame from a non-AP STA to an AP is described in  8.4.2.181.1 (IP Address Data field for Request). The value of the IP Address Data field in Association/Reassociation Response and FILS Container Action frame from an AP to a non-AP STA is described in  8.4.2.181.2 (IP Address Data Field for Response).

***Modify the section as follow***

* FILS Action frames

The FILS Action frame is used for FILS operation after the non-AP STA has associated with the AP. A FILS Action field, in the octet immediately after the Category field, differentiates the FILS Action frame formats. The defined FILS Action frames are listed in Table 8-366a (FILS Action frame fields).

|  |
| --- |
| * FILS Action frame fields
 |
| Action field value | Description |
| 0 | FILS Container Action frame [13/1358r3][CID 4882] |
| 1-255 | Reserved |

***Modify the section as follow***

* FILS Container Action frame [13/1358r3, CIDs 2171, 3177, 3176, 3033]

FILS Container Action frame is used to exchange FILS IP Address Assignment elements.[14/0423r0].

|  |  |  |  |
| --- | --- | --- | --- |
|  | Category | FILS Action | FILS IP Address Assignment elements (defined in  8.4.2.181 (FILS IP Address Assignment element)). [14/0423r0] |
| Octets: | 1 | 1 | variable |
| * FILS Container Action frame field format [13/1358r3]
 |

 [13/1358r3, CIDs 3068, 3176, 2030]

The Category field is set to the value for FILS action defined in Table 8-43 (Category values). [CID 2847]

The FILS Action field is set to the value given in Table 8-366a (FILS Action frame fields) for FILS Container Action frame. [13/1358r3]

The FILS IPAddress Assignment element carries the FILS parameters for IP address assignment and DNS server information. [13/1358r3, CID 2171] [14/0423r0]

***Modify the section as follow***

* FILS IP Address Configuration [14/0423r0]

An AP requests an IP address using the FILS IP Address Request data field of the MLME-ASSOCIATE.request or MLME-REASSOCIATE.request[CID 2175]. A STA sends a FILS IP Address Assignment element of the Association/Reassociation Request frame or FILS Container Action frame. [13/1358r3, CID 3177] [14/0423r0]

When the AP receives an Association Request including FILS IPAddress Assignment element or a FILS Container Action Fframe, the AP initiates a procedure to assign an IP address for the STA using a mechanism that is not specified in this standard. [13/1358r3, CID 3177, 2884] [14/0423r0][CID 4806]

The AP may assign the IP address using Association Response or FILS Container Action frame. [CID 2168][13/1358r3, CID 3177] [14/0423r0]

The STA may request IP address by sending FILS IP Address Assignment element using either an Association Request frame or a FILS Container Action frame. [13/1358r3 CIDs 2868, 2169, 2170] [14/0423r0][CID 4065, 4825]

If the STA has included IP Address Request TLV in the Association Request frame, then the AP may respond to the STA in one of the following ways: [13/1358r3]

* If the AP is able to assign IP address in the Association Response frame, then the AP sets the IP address assignment pending flag in the IP Address Response Control field of the FILS IP Address Assignment element to 0 and includes the IP address along with other IP address fields as defined in  8.4.2.181 (FILS IP Address Assignment element) in Association Response frame.
* If the AP is unable to assign IP address in the Association Response frame, then the AP sets the IP address assignment pending flag in the IP Address Response Control field of the FILS IP Address Assignment element to '”1'” and sets the IP address request timeout to 0 in Association Response frame. [CID 4826]
* If the AP needs more time to assign IP address, then the AP sets the IP address assignment pending flag in the IP Address Response Control field of the FILS IP Address Assignment element to '”1'” and sets the IP address request timeout to the maximum estimated time in the unit of seconds within which it (AP) will try to assign an IP address to the requesting STA in the Association Response frame. When the AP is ready with an IP address within IP address request timeout period, then AP shall send the IP address to the STA using FILS Container Action Fframe. If the STA does not receive the FILS Container Action Fframe containing IP assignment within IP address request timeout period, then the STA may initiate IP address assignment procedure using FILS Container Action Fframe or mechanisms that are out of scope of this specification.

STA may use FILS Container Action frame to re-request its IP address to extend the TTL. If the STA has included IP Address Assignment element in the FILS Container Action frame, then the AP may respond to the STA in one of the following ways: [13/1358r3, CID 2171] [14/0423r0][CID 4065, 4825]

* If the AP is able to assign IP address immediately, then the AP sets the IP address assignment pending flag in the IP Address Response Control field of the FILS IP Address Assignment element to 0 and includes the IP address, along with other IP address fields as defined in  8.4.2.181 (FILS IP Address Assignment element) in FILS Container Action frame. [CID 4066]
* If the AP is unable to assign IP address, then the AP sets the IP address assignment pending flag in the IP Address Response Control field of the FILS IP Address Assignment element to '”1'” and sets the IP address request timeout to 0 in FILS Container Action frame.

 If the AP needs more time to assign IP address, then the AP sets the IP address assignment pending flag in the IP Address Response Control field of the FILS IP Address Assignment element to '”1'” and sets the IP address request timeout to the maximum estimated time in the unit of seconds within which it (AP) will try to assign an IP address to the requesting STA in FILS Container Action frame. When the AP is ready with an IP address within IP address request timeout period, then AP shall send the IP address to the STA using FILS Container Action Fframe. If the STA does not receive the FILS Container Action Fframe containing IP assignment within IP address request timeout period, then the STA may initiate IP address assignment procedure using mechanisms that are out of scope of this specification.