IEEE P802.11
Wireless LANs

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Abstract

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***Instruct the editor to modify this section as indicated:***

**10.45.3.2 FILS IP address configuration**

In order to request an IP address, a STA may include a FILS IP Address Assignment element in the Association/Reassociation Request frame or FILS Container Action frame that it sends to the AP.

The AP may send the IP address assigned to the STA in a FILS IP Address Assignment element (8.4.2.181) that is included in an Association/Reassociation Response frame or a FILS Container Action frame. Methods for determining the IP address to be assigned to an STA are out of scope in this document.

When the AP receives an (Re)Association Request including a FILS IP Address Assignment element or a FILS

Container Action frame, the AP initiates a procedure to assign an IP address for the STA using a mechanism that is not specified in this standard.

The AP may assign the IP address using an (Re)Association Response or a FILS Container Action frame.

The STA may request an IP address by sending the FILS IP Address Assignment element using either an

(Re)Association Request frame or a FILS Container Action frame.

If the STA has included a FILS IP Address Assignment element in the (Re)Association Request frame, then the

AP may respond to the STA in one of the following ways:

— If the AP is able to assign IP address in the (Re)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 (Re)Association Response frame. For IPv6 addresses, an AP should perform DAD (IETF RFC 4862) before assigning an IPv6 address for the

STA.

— If the AP is unable to assign IP address in the (Re)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 (Re)Association Response 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 the (Re)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 frame. If the STA does not receive the FILS Container Action frame containing IP assignment within IP address request timeout period, then the STA may initiate IP address assignment procedure using FILS Container Action frame 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:

— 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.

— 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 frame. If the STA does not receive the FILS Container Action frame 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