IEEE P802.11
Wireless LANs

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| Resolution to CID 30005 30006 |
| Date: 2016-07-25 |
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Abstract

This document proposes resolutions to CID 30005 and 30006

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| **CID** | **Comment** | **Proposed Resolution** | **Resolution** |
| 30005 | By deleting the MLME-FILSContainer primitives, there now appears to be no way to generate a FILS Container frame. | Either put these primitives back in (fixing the issues noted in previous ballot, CIDs 20175 and 20176), or delete the FILS Container frame and all associated text and semantics. | Revised: Adopt text changes proposed in Document: 16/0981r1 |
| 30006 | How do we create a FILS container without having the corresponding MLME primitives any more?I assume that the intent was not to remove the FILS container from the draft. | Revert the changes that deleted the MLME-FILSContainer primitives.Reconsider all comments from previous ballots against the reverted subclauses. | Revised: Adopt Text changes proposed in Document: 16/0981r1  |
| Previous ballot: CID 20175 | Why is FILSIPAddressAssignment an optional parameter to this primitive? What's the point of the primitive ever being used without this parameter? | Delete the sentence starting, "The parameter isoptionally present ..." | (was REVISED: clause deleted) |
| Previous ballot:CID 20176 | The FILSContainerTimeLimit appears to be purely a local process (nothing is exchanged with the peer, no other behavior is linked to this timeout). Such local timeout processing does not need to be specified in the Standard. | Remove the FILSContainerTimeLimit argument. | (was REVISED: clause deleted) |

***Instruction to Editor: Add the following subclause to the end of clause 6.3***

**6.3.105 FILS Container**

 **6.3.105.1 General**

 This mechanism supports the process of IP address setup with a peer MAC entity.

**6.3.105.2 MLME-FILSContainer.request**

**6.3.105.2.1 Function**

This primitive requests transmission of the FILS Container frame with a specified peer MAC entity.

**6.3.105.2.2 Semantics of the service primitive**

The primate parameters are as follows:

MLME-FILSContainer.request(

Peer MAC Address**,**

FILSIPAddressAssignment,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| Peer MAC Address | MACAddress | Any valid individual MAC address | Specifies the address of the peer MAC entity |
| FILSIPAddressAssignment | FILS IP Address Assignment element | As defined in 9.4.2.184 (FILS IP Address Assignment element) | The request may be for a new IP address or a specified IP address.  |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.26 (Vendor Specific element) | Zero or more elements. |

**6.3.105.2.3 When generated**

This primitive is generated by the SME for a STA to request IP Address setup from the AP.

**6.3.105.2.4 Effect of receipt**

This primitive requests IP Address setup. In the case that a response is received from the AP. The MLME subsequently issues an MLME-FILSContainer.confirm primitive that reflects the results.

**6.3.105.3 MLME-FILSContainer.confirm**

**6.3.105.3.1 Function**

This primitive reports the results of an IP Address setup with an AP.

**6.3.105.3.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-FILSContainer.confirm(

Peer MAC Address

FILSIPAddressAssignment,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| Peer MAC Address | MACAddress | Any valid individual MAC address | Specifies the address of the peer MAC entity. |
| FILSIPAddressAssignment | FILS IP Address Assignment element | As defined in 9.4.2.184 (FILS IP Address Assignment element) | IP address information.  |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.26 (Vendor Specific element) | Zero or more elements. |

**6.3.105.4 MLME-FILSContainer.Indication**
**6.3.105.4.1 Function**
This primitive indicates receipt of a request of IP Address setup.

**6.3.105.4.2 Semantics of the service primitive**
The primitive parameters are as follows:
MLME-FILSContainer.indication(

Peer MAC Address,
FILSIPAddressAssignment,
VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid Range** | **Description** |
| Peer MAC Address | MACAddress | Any valid individual MAC address | Specifies the address of the peer MAC entity  |
| FILSIPAddressAssignment | FILS IP AddressAssignment element | As defined in9.4.2.181(FILS IPAddress Assignment element) | An explicit request for anIP address. The requestmay be for a new IPaddress or a specified IPaddress. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.26(Vendor Specific element) | Zero or more elements |

**6.3.105.4.3 When generated**
This primitive is generated by the MLME as a result of the receipt of request to setup IP Addresses from a
specific peer MAC entity.
 **6.3.105.4.4 Effect of receipt**

The SME is notified of the receipt of this FILSContainer request.
 **6.3.105.5 MLME-FILSContainer.response**
 **6.3.105.5.1 Function**

This primitive is used to send a response to a specified peer MAC entity that requested IP Address setup
with the STA that issued this primitive.

**6.3.105.5.2 Semantics of the service primitive**
The primitive parameters are as follows:

MLME-FILSContainer.response(

Peer MAC Address,
FILSIPAddressAssignment,
VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valide Range** | **Description** |
| Peer MAC Address | MACAddress | Any valid individual MAC address | Specifies the address of the peer MAC entity. |
| FILSIPAddressAssignment | FILS IP Address Assignment element | As defined in 9.4.2.184 (FILS IP Address Assignment element) | IP address information.  |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.26(Vendor Specific element) | Zero or more elements. |

**6.3.105.5.3 When generated**
This primitive is generated by the SME of a STA as a response to an MLME-FILSContainer.indication
primitive.

**6.3.105.5.4 Effect of receipt**
This primitive initiates transmission of a response to the specific peer MAC entity that requested IP Address
setup.

***Instruction to Editor: Please change text in 11.47.3.3 as shown below***

**11.47.3.3 FILS IP address configuration**

In order to request an IP address, a STA may include a FILS IP Address Assignment element in the (Re)Association Request frame or FILS Container 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 ( 9.4.2.185
(Key Delivery element)) that is included in a (Re)Association Response frame or a FILS Container frame.
Methods for determining the IP address to be assigned to a STA are out of scope in this document.

When the AP receives a (Re)Association Request frame including a FILS IP Address Assignment element
or a FILS Container frame, the AP initiates a procedure to assign an IP address for the STA using a mechanism that is outside the scope of this standard.

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 an 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 Data field as defined in 9.4.2.184 (FILS IP
Address Assignment element) in the (Re)Association Response frame. For IPv6 addresses, an AP performs Duplicate Address Detection (IETF RFC 4862) before assigning an IPv6 address for the
STA.

— If the AP is unable to assign an 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 an IP address, 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 the AP tries 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 a FILS Container frame. If the STA does not receive the
FILS Container frame containing IP assignment within IP address request timeout period, then the
STA may initiate IP address assignment procedure using a FILS Container frame or mechanisms
that are out of scope of this specification.If an STA has initiated an IP address assignment procedure
(using mechanisms that are out of scope) due to the expiry of the timeout period, and subsequently
receives an FILS container frame containing an IP assignment, it shall discard the IP address assignment received through the FILS container frame.

The STA may use the MLME-FILSContainer.request primitive ~~use a FILS Container frame~~ to re-request its IP address to extend its lifetime and include the requested IP address in an IP Address Assignment element in a FILS Container frame. If the STA has included an IP Address Assignment element in the FILS Container frame, then the AP may respond to the STA using the MLME-FILSContainer.response primitive in one of the following ways:

— If the AP is able to assign an 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 Data field as defined in 9.4.2.184 (FILS IP Address Assignment
element) in the FILS Container frame.

— If the AP is unable to assign an 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 the FILS Container frame.

— If the AP needs more time to assign an 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) tries to assign an IP address to the requesting STA in FILS Container frame. When the AP is ready to assign an IP address within IP address request timeout period, then the AP shall send the IP address to the STA using a FILS Container frame. If the STA does not receive the FILS Container frame containing an IP assignment within the IP address request timeout period, then the STA may initiate an IP address assignment procedure using mechanisms that are out of scope of this specification. If an STA has initiated an IP address assignment procedure (using mechanisms that are out of scope) due to the expiry of the timeout period, and subsequently receives an FILS container frame containing an IP assignment, it shall discard the IP address assignment received through the FILS container frame.

If a non-AP STA determines a duplicate IP address assignment (through means that are out of scope for this
standard), it may discard the assigned IP address and request a new IP address.