IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Removing Content ID from EBCS MPDU | | | | |
| Date: 2022-03-08 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Hitoshi Morioka | SRC Software | Fukuoka, JAPAN |  | hmorioka@src-soft.com |
|  |  |  |  |  |

Abstract

This document describes the text proposal to remove content ID from EBCS MPDU.

**The baseline is D2.2.**

# Proposed text

### 5.1.5.2 Non-GLK non-AP role

***Replace the paragraph at P28L12 as follows:***

~~In the context of EBCS, the EBCS filter strips the EBCS content ID.~~

In the context of EBCS DL, the EBCS filter fills the source address and the destination address in MA-UNITDATA.indication according to 11.55.1a (EBCS Addressing).

### 5.1.5.3 Non-GLK AP role

***Modify the paragraph at P28L29 as follows:***

In the context of EBCS, an EBCS traffic stream mapper, located at the entry of the DS, assigns the EBCS

~~content~~ traffic stream ID for frames of EBCS traffic stream according to the configuration. The assigned EBCS traffic stream ID and the configured EBCS AP group ID are encoded into the Address fields in the MAC header according to 11.55.1a (EBCS Addressing).

***Remove amendment for clause 5.2.3 and 5.2.4.3***

### ~~5.2.3 MA-UNITDATA.request~~

### ~~5.2.3.2 Semantics of the service primitive~~

### ~~5.2.4.3 When generated~~

### 9.3.2.1.4 The frame body

***Modify the paragraph as follows:***

For Data frames of subtype Null, QoS Null, QoS CF-Ack, QoS CF-Poll, and QoS CF-Ack +CF-Poll, the

Frame Body field is null (i.e., has a length of 0 octets); these subtypes are used for MAC control purposes.

For Data frames of subtype Data, the Frame Body field contains all of, or a fragment of, an MSDU after any

encapsulation for security. For Data frames of subtypes QoS Data, QoS Data +CF-Ack, QoS Data +CF-Poll,

and QoS Data +CF-Ack +CF-Poll, the Frame Body field contains an MSDU (or fragment thereof) or AMSDU

after any encapsulation for security. For Data frames of subtype QoS Data that are transmitted by a

mesh STA, the Frame Body field also contains a Mesh Control field, as described in 9.2.4.8.3 (Mesh Control

field). For Data frames of subtype EBCS Data, the Frame Body field contains an MSDU and overhead for

authentication in case of PKFA or HCFA, as described in 12.14.2.3 (PKFA MPDU format) or 12.14.3.3

(HCFA MPDU generation) respectively; in the case of HLSA, the Frame Body field contains an MSDU ~~and~~

~~EBCS overhead as described in 12.14.4.2 (HLSA MPDU Generation)~~.

### 11.55.2.2 EBCS DL operation at an EBCS AP

***Modify the paragraph at P77L33 as follows: (Baseline: 11-22/0089r8)***

In the MAC, MSDUs with a non-null EBCS content ID in the MA-UNITDATA.request shall bypass IEEE 802.1X filtering. ~~The EBCS filter affiliated with the AP (see Figure 5-1 (MAC data plane architecture)) that is configured according to the dot11EBCSTrafficStreamTable shall filter the MSDU by the destination address and the EBCS content ID in the MA-UNITDATA.request. If the EBCS content ID is not null, and the destination address and the EBCS content ID are specified in the dot11EBCSTrafficStreamTable, the EBCS filter shall pass the MSDU. If the EBCS content ID is not null, and the destination address or the EBCS content ID is not specified in the dot11EBCSTrafficStreamTable, the EBCS filter shall discard the MSDU. If the EBCS content ID is null, the EBCS filter shall pass the MSDU as non-EBCS traffic. An MSDU with a non-null EBCS content ID shall have one of the following three frame authentication mechanisms.~~

If the destination address in the MA-UNITDATA.request is an EBCS Content MAC address, MAC shall process the request as EBCS, otherwise MAC shall process the request as non-EBCS. For MA-UNITDATA.request for EBCS, MAC shall use one of the following three frame authentication mechanism according to the content ID that is encoded in the EBCS Content MAC address (11.55.1a (EBCS addressing)).

— PKFA (12.14.2 (EBCS public key frame authentication (PKFA)))

— HCFA (12.14.3 (EBCS hash chain frame authentication (HCFA)))

— HLSA (12.14.4 (No frame authentication with mandatory higher layer source authentication (HLSA)))

### 11.55.2.3 EBCS DL operation at an EBCS receiver

***Modify the paragraph at P79L1 as follows: (Baseline: 11-22/0298r2)***

An MSDU contained in an authenticated EBCS Data frame shall be forwarded to a higher layer via the EBCS filter. The EBCS filter shall be configured by the SME to filter out the undesired MSDUs if they do not have the corresponding EBCS Content MAC address and the corresponding EBCS content ID. An EBCS traffic stream shall pass through the IEEE 802.1X Controlled Port even if the IEEE 802.1X Controlled Port is blocked (e.g. because the STA is not associated), and generate MA-UNITDATA.indication with the SA as the destination address and the TA as the source address.

### 12.14.2.3 PKFA MPDU format

***Modify Figure 12-55c as follows:***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | MAC Header | ~~Content ID~~ | Timestamp | Data Sequence | Data Length | Data (PDU) | Signature | FCS |
| Octets: | variable | ~~1~~ | ~~7~~8 | 2 | 2 | >=1 | variable | 4 |

**Figure 12-55c---PKFA MPDU format**

***Remove line at P86L46:***

~~The Content ID field contains the content ID of the EBCS traffic stream.~~

***Modify line at P86L63 as follows:***

Signature = Sign (transmitter’s private key, transmitter’s MAC address || PKFA MPDU fields from the

~~Content ID~~ Timestamp field to the end of the Data (PDU) field)

### 12.14.3.3 HCFA MPDU generation

***Modify Figure 12-55i as follows:***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | MAC Header | ~~Content ID~~ | Timestamp | HCFA Sequence | Key Sequence | Data Sequence |
| Octets: | variable | ~~1~~ | ~~7~~8 | 3 | 1 | 2 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Data Length | Data (PDU) | Disclosed Key | Instant Authenticator (optional) | HCFA Authenticator | FCS |
| Octets: | 2 | >=1 | variable | variable | variable | 4 |

**Figure 12-55i---HCFA MPDU format**

***Remove line at P93L20:***

~~The Content ID field contains the content ID of the EBCS traffic stream.~~

### 12.14.4.1 General

***Remove subclause 12.14.4.2:***

### ~~12.14.4.2 HLSA MPDU generation~~