IEEE P802.11
Wireless LANs

|  |
| --- |
| Proposed Text for CR Part 3 |
| Date: 2022-02-25 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Xiaofei Wang | InterDigital Inc. | 111 West 33rd StreetNew York, NY 10120USA | +1-607-592-2727 | Xiaofei.wang@interdigital.com |
| Rui Yang |  |  |
|  |  |  |  |  |

Abstract

This submission proposes the spec text for resolutions for the CID 2044, 2258, 2257, 2208, 2259, 2260. The baseline for this comment resolution document is 802.11bc Draft 2.2.

* Rev 0: first draft

***TGbc Editor: Please modify the text of 6.3.126 as follows (802.11bc D2.1).***

#### 6.3.126.6.2 Semantics of the service primitive

The primitive parameters are as follows: MLME-EBCSCONTENT.request(

PeerSTAAddress,

DialogToken, EBCSRequest

)

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid range** | **Description** |
| PeerSTAAdress | MAC Address | Any valid individual MAC Address | Specifies the MAC address of an associated AP to which the EBCS Content Request frame is transmitted. |
| DialogToken | Integer | 1-255 | The dialog token to identify the EBCS negotiation transaction. |
| EBCSRequest | EBCS Request field [#2257] | As defined in [9.4.1.68](#_bookmark62) [(EBCS Content](#_bookmark62) [Request field)](#_bookmark62) | Specifies the request information for one or more EBCS traffic streams. |

#### 6.3.126.7.2 Semantics of the service primitive

The primitive parameters are as follows: MLME-EBCSCONTENT.confirm(

DialogToken, EBCSResponse

)

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid range** | **Description** |
| DialogToken | Integer | 1-255 | The dialog token to identify the EBCS negotiation transaction. |
| EBCSResponse | EBCS Response field [#2258] | As defined in [9.4.1.69](#_bookmark67) [(EBCS Content](#_bookmark67) [Response field)](#_bookmark67) | The contents of the EBCS Response ele- ment in the received EBCS Content Response frame. |

####  Semantics of the service primitive

The primitive parameters are as follows: MLME-EBCSCONTENT.indication(

PeerSTAAddress, DialogToken, EBCSRequest

)

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid range** | **Description** |
| PeerSTAAdress | MAC Address | Any valid individual MAC Address | Specifies the MAC address of the peer MAC entity from which the EBCS Content Request frame is received. |
| DialogToken | Integer | 1-255 | The dialog token to identify the EBCS negotiation transaction. |
| EBCSRequest | EBCS Request field [#2259] | As defined in [9.4.1.68](#_bookmark62) [(EBCS Content](#_bookmark62) [Request field)](#_bookmark62) | Specifies the request information for one or more EBCS traffic streams. |

#### Semantics of the service primitive

The primitive parameters are as follows: MLME-EBCSCONTENT.response(

PeerSTAAddress,

DialogToken,

EBCSResponse

)

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid range** | **Description** |
| PeerSTAAddress | MAC Address | Any valid individual MAC Address | Specifies the MAC address of the peer MAC entity to which the EBCS Content Response frame is transmitted. |
| DialogToken | Integer | 1-255 | The dialog token to identify the EBCS negotiation transaction. |
| EBCSResponse | EBCS Response field [#2260] | As defined in [9.4.1.69](#_bookmark67) [(EBCS Content](#_bookmark67) [Response field)](#_bookmark67) | Specifies the results and information of the EBCS negotiation procedure. |

***TGbc Editor: Please modify the text of 11.55.4, 11.55.5, and 11.55.6 as follows (802.11bc D2.2).***

#### 11.55.2.7 EBCS negotiation procedure for associated STAs [#2044]

To request one or more EBCS traffic streams provided by an EBCS AP, with which an EBCS non-AP STA is associated, the STA shall transmit an EBCS Content Request frame to the EBCS AP. To request one or more EBCS traffic streams that an EBCS AP has indicated require association, an unassociated EBCS non-AP STA shall associate with the EBCS AP and subsequently transmit an EBCS Content Request frame. A request for one or more EBCS traffic streams that does not require association may also be included in the same EBCS Content Request frame. When requesting an EBCS traffic stream using an EBCS Content Request frame, an EBCS non-AP STA may request an EBCS traffic stream with a certain time to termination as indicated in the Requested Time To Termination field included in the EBCS Content Request frame. This element optionally allows the non-AP STA to provide the MAC address of the AP currently serving the EBCS traffic stream, which might not be the same as the one receiving the request.

After receiving an EBCS Content Request frame from an associated EBCS non-AP STA, an EBCS AP shall respond with an EBCS Content Response frame. If the EBCS AP indicates in the EBCS Content Response frame that the request for an EBCS traffic stream is successful, it may include a Time To Termination field to indicate the time to termination for the EBCS traffic stream. It may also include EBCS SP duration and the EBCS SP interval for the EBCS traffic stream in the EBCS Content Response frame.

An EBCS non-AP STA that receives an EBCS Content Response frame may negotiate for the extension of an EBCS traffic stream if the EBCS traffic stream indicated in one of the EBCS Response Info subfields terminates earlier than desired. The EBCS STA may negotiate the extension of the EBCS traffic stream by transmitting another EBCS Content Request frame to its associated AP by including a desired value in the Requested Time To Termination subfield in the EBCS Request Info subfield whose Content ID subfield corresponds to the EBCS traffic stream.

NOTE 1—Which values of a received Time To Termination subfield are considered desirable is determined by the receiving EBCS non-AP STA and is beyond the scope of this standard.

NOTE 2—The EBCS transmitter of an EBCS traffic stream has the authority to determine the time to termination of the EBCS traffic stream.

####  11.55.2.7 EBCS negotiation procedure for unassociated STAs

An unassociated EBCS STA may transmit an EBCS ANQP-element to an EBCS AP to register for one or more EBCS traffic streams when that AP has indicated that it does not require an association. When registering for an EBCS traffic stream using an EBCS Request ANQP-element, an EBCS STA may request a specific time to termination using the Requested Time To Termination subfield.

After receiving an EBCS Request ANQP-element from an unassociated EBCS STA, an EBCS AP shall respond with EBCS Response ANQP-element and EBCS ANQP-element. If the EBCS AP accepts a request for an EBCS traffic stream, it may include a Time To Termination subfield in the EBCS ANQP-element to indicate the time to termination for the EBCS traffic stream.

NOTE—The EBCS AP has the authority to determine the time to termination of the EBCS traffic stream. ANQP- elements received from unassociated STAs are not protected and hence the EBCS AP might exercise caution in accepting certain requested durations. An EBCS AP evaluates certain criteria before responding to the EBCS service request from an unassociated STA from which it receives an EBCS Request ANQP-element. Such criteria might include, but are not limited to, limiting the time duration and/or frequency of EBCS traffic stream requests. The evaluation of the criteria might be based on local policies installed at the EBCS AP, which is out of scope of this standard.

#### 11.55.2.8 EBCS termination notice procedure

The EBCS termination notice procedure allows a STA that is a broadcaster of EBCS traffic streams to indicate that one or more of the EBCS traffic streams that it is broadcasting is to be terminated.

An EBCS STA shall start to transmit EBCS Termination Notice frames if one or more EBCS that it is transmitting will terminate within an interval that is equal to or shorter than dot11EBCSTerminationNoticeTime, if the STA is not periodically transmitting a schedule for the EBCS traffic stream that is to be terminated. If the EBCS STA starts to transmit EBCS Termination Notice frames, the STA shall transmit the EBCS Termination Notice frames with a period that is larger than dot11EBCSTerminationNoticeMinimumInterval and smaller than dot11EBCSTerminationNoticeMaximumInterval.

The EBCS STA transmitting an EBCS Termination Notice frame shall indicate in the Time To Termination subfield in an EBCS Termination Info subfield the number of TBTTs before the EBCS traffic stream identified by the content ID contained in the Content ID subfield in the same EBCS Termination Info subfield terminates.

The EBCS STA transmitting an EBCS Termination Notice frame shall indicate in the Request Method subfield in an EBCS Termination Info subfield the request method that a STA should use to negotiate for the extension of the EBCS traffic stream identified by the content ID contained in the Content ID subfield in the same EBCS Termination Info subfield.The EBCS STA transmitting an EBCS Termination Notice frame may indicate in the Destination Address subfield in an EBCS Termination Info subfield the address associated with the request method indicated in the Request Method subfield in the same EBCS Termination Info subfield that a STA should use to negotiate for the extension of the EBCS traffic stream identified by the content ID contained in the Content ID subfield in the same EBCS Termination Info subfield.

After transmitting an EBCS Termination Notice frame, an EBCS STA shall transmit an EBCS Termination Notice frame with an updated value in the Time To Termination subfield in an EBCS Termination Info subfield if the EBCS traffic stream identified by the content ID in the Content ID subfield in the same EBCS Termination Info subfield has been negotiated to have a new time to termination value. If the negotiated duration for the EBCS traffic stream is longer than the maximum time to termination value, the transmitting STA shall set the Time To Termination subfield to 65535.

An EBCS STA that receives an EBCS Termination Notice frame may negotiate for the extension of an EBCS traffic stream if the EBCS traffic stream indicated in one of the EBCS Termination Info subfields terminates earlier than desired. If the EBCS STA negotiates the extension of the EBCS traffic stream, it shall use the request method indicated in the Request Method subfield in the EBCS Termination Info subfield (See [11.55.4](#_bookmark217) [(EBCS negotiation procedure for associated STAs)](#_bookmark217) and [11.55.5 (EBCS negotiation procedure for unassociated](#_bookmark219) [STAs)](#_bookmark219)).

An EBCS STA shall not transmit an EBCS Content Request frame or a frame containing an EBCS ANQP- element requesting an EBCS traffic stream if the STA receives an EBCS Termination Notice frame with a valid time to termination value contained in the EBCS Termination Info subfield containing the content ID of the EBCS traffic stream.

NOTE—The valid values of a received Time To Termination subfield are determined by the receiving STA and are beyond the scope of this standard.