IEEE P802.11
Wireless LANs

|  |
| --- |
| Proposed Text for CR Part 4 |
| Date: 2022-07-06 |
| 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 3070. The baseline for this comment resolution document is 802.11bc Draft 3.0.

* Rev 0: first draft

***TGbc Editor: Please incorporate the following changes (802.11bc D3.0).***

**9.6.7.55** **EBCS Termination Notice frame format**

The Public Action field is defined in 9.6.7.1 (Public Action frames).

 The EBCS Termination Information Set field contains one or more EBCS Termination Info subfields.

4

1. The format of an EBCS Termination Info subfield is shown in [Figure 9-909av (EBCS Termination Info](#_bookmark104)
2. [subfield format](#_bookmark104)).

8

9

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| EBCSTermination Info Control | Content ID | Title Length | Title | Time To Termination | Negotiation Method | Negotiation Address Type | Negotiation Address |

10

11

12

13 Octets: 1 1 0 or 1 variable 2 1 0 or 1 variable

14

###### 15 Figure 9-909av—EBCS Termination Info subfield format

16

17

1. The format of the EBCS Termination Info Control subfield is shown in [Figure 9-909aw (EBCS Termination](#_bookmark105)
2. [Info Control subfield format).](#_bookmark105)

20

21

22 B0 B1 B2 B3 B7

23

|  |  |  |  |
| --- | --- | --- | --- |
| Title Presence Indicator | Negotiation Address Presence Indicator | Association Required | Reserved |

24

25

26

27

28

29 Bits: 1 1 1 5

30

###### 31 Figure 9-909aw—EBCS Termination Info Control subfield format

32

1. A value of 1 in the Title Presence Indicator subfield indicates that a Title Length subfield and a Title subfield
2. are present in the EBCS Termination Info subfield. A value of 0 indicates that a Title Length subfield and a

35

36 Title subfield are not present in the EBCS Termination Info subfield.

37

1. A value of 1 in the Negotiation Address Presence Indicator subfield indicates that a Negotiation Address
2. Type subfield and a Negotiation Address subfield are present in the EBCS Termination Info subfield. The
3. value of 0 indicates that a Negotiation Address Type subfield and a Negotiation Address subfield are not

41

42 present in the EBCS Termination Info subfield.

43

1. A value of 1 in the Association Required subfield indicates that an association is required to consume the
2. EBCS traffic stream identified by the content ID contained in the Content ID subfield. A value of 0 indicates
3. that an association is not required to consume the EBCS traffic stream identified by the content ID contained

47

48 in the Content ID subfield.

49

50 The Content ID subfield indicates the ID of the EBCS traffic stream to be terminated.

51

52 The Title Length subfield indicates the length of the Title subfield in octets.

53

54

1. The Title subfield indicates the title in a UTF-8 string of the EBCS traffic stream identified by the content ID
2. contained in the Content ID subfield.

57

58 The Time To Termination subfield indicates the number of TBTTs until the EBCS traffic stream identified

59

1. by the content ID contained in the Content ID subfield is terminated. A value of 0 indicates that the EBCS
2. traffic stream identified by the content ID in the Content ID subfield shall be terminated at the following
3. TBTT. A value of 65535 indicates that the EBCS traffic stream identified by the content ID in the Content
4. ID subfield has no specific termination time.

64

65

1. NOTE—The Time To Termination subfield indicates the termination time for the transmitter STA of the
2. EBCS traffic stream and does not indicate the termination time of the content associated with the EBCS
3. traffic stream.

4

5

1. The Negotiation Method subfield indicates the negotiation method to request an extension of the EBCS traffic
2. stream identified by the content ID contained in the Content ID subfield. The encoding of the Request
3. Method subfield is defined in [Table 9-397d (Negotiation Method subfield encoding).](#_bookmark106)

9

10

11

###### 12 Table 9-397d—Negotiation Method subfield encoding

13

14

|  |  |  |
| --- | --- | --- |
| **Negotiation Method subfield value** | **Meaning** | **Notes** |
| 0 | No negotiation |  |
| 1 | Request through EBCS Content Request frames | EBCS traffic stream request by STAs that are associated with the broadcaster |
| 2 | Request through EBCS Content Request ANQP-element | EBCS traffic stream request by STAs that are not associated with the broadcaster |
| 3 | Request through IP request | Out of band IP request |
| 4-255 | Reserved |  |

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

1. The Negotiation Address Type subfield indicates the type of the address included in the Negotiation Address
2. subfield. The encoding of the Negotiation Address Type subfield is defined in [Table 9-397e (Negotiation](#_bookmark107)
3. [Address Type subfield encoding](#_bookmark107)).

37

38

39

###### 40 Table 9-397e—Negotiation Address Type subfield encoding

41

42

|  |  |
| --- | --- |
| **Destination Address Type value** | **Meaning** |
| 0 | MAC address |
| 1 | UDP/IPv4 address |
| 2 | UDP/IPv6 address |
| 3 | UDP/hostname |
| 4-255 | Reserved |

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

1. The Negotiation Address subfield indicates the address to be used for negotiating for the extension of the
2. EBCS traffic stream identified by the content ID contained in the Content ID subfield. The format and the
3. length of the Negotiation Address subfield depends on the value contained in the Negotiation Address Type
4. subfield.

62

63

64 The Negotiation Address subfield contains a MAC address if the Negotiation Address Type is set to 0.

65

###### 11.55.3.9 EBCS termination notice procedure

40

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

43

44 An EBCS STA shall start to transmit EBCS Termination Notice frames if one or more EBCS that it is

45

1. transmitting will terminate within an interval that is equal to or shorter than
2. dot11EBCSTerminationNoticeTime, if the STA is not periodically transmitting a schedule for the EBCS traffic
3. stream that is to be terminated. If the EBCS STA starts to transmit EBCS Termination Notice frames, the STA
4. shall transmit the EBCS Termination Notice frames with a period that is larger than
5. dot11EBCSTerminationNoticeMinimumInterval and smaller than

51

52 dot11EBCSTerminationNoticeMaximumInterval.

53

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

57

58

1. The EBCS STA transmitting an EBCS Termination Notice frame shall indicate in the Negotiation Method subfield in an EBCS Termination Info subfield the negotiation method that a STA should use to negotiate for the extension
2. of the EBCS traffic stream identified by the content ID contained in the Content ID subfield in the same EBCS
3. Termination Info subfield. The EBCS STA transmitting an EBCS Termination Notice frame may indicate in

63

1. the Negotiation Address subfield in an EBCS Termination Info subfield the address associated with the request
2. method indicated in the Negotiation Method subfield in the same EBCS Termination Info subfield that a STA
3. should use to negotiate for the extension of the EBCS traffic stream identified by the content ID contained in
4. the Content ID subfield in the same EBCS Termination Info subfield.

3

4

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

10

11 STA shall set the Time To Termination subfield to 65535.

12

1. An EBCS STA that receives an EBCS Termination Notice frame shall negotiate for the extension of an EBCS
2. traffic stream if the EBCS traffic stream indicated in one of the EBCS Termination Info subfields terminates
3. earlier than desired. If the EBCS STA negotiates the extension of the EBCS traffic stream, it shall use the

16

1. negotiation method indicated in the Negotiation Method subfield in the EBCS Termination Info subfield (See
2. [11.55.3.7 (EBCS negotiation procedure for associated STAs)](#_bookmark134) and [11.55.3.8 (EBCS negotiation procedure for](#_bookmark136)
3. [unassociated STAs)](#_bookmark136)).

20

21 An EBCS STA shall not transmit an EBCS Content Request frame or a frame containing an EBCS Content

22

1. Request ANQP-element requesting an EBCS traffic stream if the STA receives an EBCS Termination Notice
2. frame with an acceptable time to termination value contained in the EBCS Termination Info subfield
3. containing the content ID of the EBCS traffic stream.

26

1. 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.

1. The format of the Negotiation Address subfield when the Negotiation Address Type is set to 1 is shown in
2. [Figure 9-909ax (Negotiation Address subfield format for a Negotiation Address Type of 1](#_bookmark108)).

3

4

IPv4 Address

Negotiation UDP Port

5

6

7 Octets: 4 2

8

###### 9 Figure 9-909ax—Negotiation Address subfield format for a Negotiation Address Type of 1

10

11

1. The IPv4 Address subfield indicates an IPv4 address used for negotiating the extension of the EBCS traffic
2. stream.

14

15 The Negotiation UDP Port subfield indicates the UDP port associated with the IPv4 address indicated in the

16

17 IPv4 Address subfield in little endian format.

18

1. The format of the Negotiation Address subfield when the Negotiation Address Type is equal to 2 is shown in
2. [Figure 9-909ay (Negotiation Address subfield format for a Negotiation Address Type of 2](#_bookmark109)).

21

22

IPv6 Address

Negotiation UDP Port

23

24

25 Octets: 16 2

26

###### 27 Figure 9-909ay—Negotiation Address subfield format for a Negotiation Address Type of 2

28

29

1. The IPv6 Address subfield indicates an IPv6 address used for negotiating the extension of the EBCS traffic
2. stream.

32

33

1. The Negotiation UDP Port subfield indicates the UDP port associated with the IPv6 address indicated in the
2. IPv6 Address subfield in little endian format.

36

1. The format of the Negotiation Address subfield when the Negotiation Address Type is equal to 3 is shown in
2. [Figure 9-909az (Negotiation Address subfield format for a Negotiation Address Type of 3](#_bookmark110)).

39

40

|  |  |  |
| --- | --- | --- |
| Hostname Length | Hostname | Negotiation UDP Port |

41

42

43 Octets: 1 variable 2

44

###### 45 Figure 9-909az—Negotiation Address subfield format for a Negotiation Address Type of 3

46

47

48 The Hostname Length subfield indicates the length of the Hostname subfield in octets.

49

50 The Hostname subfield indicates the host name for negotiating the extension of the EBCS traffic stream in a

51

52 UTF-8 string.

53

1. The Negotiation UDP Port subfield indicates the UDP port associated with the host name indicated in the
2. Hostname subfield in little endian format.

56