IEEE P802.11
Wireless LANs

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| 802.11bc LB255 – Conflict between comments 1091 and 1451 |
| Date: May 4, 2021 |
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**Abstract**: During LB252, comments 1091 and 1451, over Table 9-bc3 have been resolved with conflict among them, yielding to a situation where the current text in IEEE 802.11bc D1.02 presents several issues.

Issues:

1. In the paragraph, the field is referred to as Request Method, while now is called Negotiation method as shown in Figure 9-bc14
2. The field is a bitmask as defined in D1.02, therefore multiple bits can be set at the same time. Bits 1, 2 (both) are not compatible with bit 3, since bit 3 states the STA needs to wait for information carried in the EBCS Info frame, while 1 and 2 state that the STA can request directly the AP to start the service.
3. The paragraph states no bits set to 1 means there is no negotiation, but Bit 0 must be set to 1 to indicate No negotiation as shown in Table 9-bc3.
4. The Table indicates values from 4 to 255 are reserved, but since it is a bitmask, should read bits 4 to 7.

**Current version in D1.02**

The Request Method subfield is a bit mask that indicates the ~~request~~ method to ~~solicit~~ request the transmission of an EBCS identified by the content ID contained in the Content ID subfield. The encoding of the Request Method subfield is defined in Table 9-bc3 (Request Method subfield encoding). When no bits are set within the Negotiation Method subfield, there is no negotiation.

Table 9-bc3 – Request Method subfield encoding

|  |  |  |
| --- | --- | --- |
| **Negotiation Method subfield bit~~value~~**  | **Meaning**  | **Notes** |
| 0 | No negotiation  |  |
| 1 | Request using EBCS Request frames  | EBCS request by STAs that are associated with the broadcaster  |
| 2 | Request using EBCS Request ANQP-elements  | EBCS request by STAs that are not associated with the broadcaster  |
| 3 | Request ~~using IP request~~as defined in EBCS Info frame  | Out of band IP request. The mechanism and address are indicated in the EBCS frame.  |
| 4-255 | Reserved |  |

**Proposed Change**

**TGbc Editor: please modify clause 9.6.5.30, page 31, line 19 to 22 and Table 9-bc3 as follows:**

The Negotiation ~~Request~~ Method subfield ~~is an bit mask that~~ indicates the method to ~~solicit~~ request the transmission of an EBCS traffic stream identified by the content ID contained in the Content ID subfield. The encoding of the Negotiation ~~Request~~ Method subfield is defined in Table 9-bc3 (Negotiation ~~Request~~ Method subfield encoding). ~~When no bits are set within the Negotiation Method subfield, there is no negotiation.~~

Table 9-bc3 – Negotiation ~~Request~~ Method subfield encoding

|  |  |  |
| --- | --- | --- |
| **Negotiation Method subfield ~~bit~~value**  | **Meaning**  | **Notes** |
| 0 | No negotiation  |  |
| 1 | Request using EBCS Request frames  | EBCS request by STAs that are associated with the broadcaster  |
| 2 | Request using EBCS Request ANQP-elements  | EBCS request by STAs which association state is defined by the Association Required bit of the Control field of the Enhanced Broadcast Services Tuple field  |
| 3 | Request ~~using IP request~~as the URL indicated in the EBCS Info frame | EBCS request by STAs which association state is defined by the Association Required bit of the Control field of the Enhanced Broadcast Services Tuple field |
| 4-255 | Reserved |  |

NOTE – Only one negotiation method can be selected per EBCS traffic stream.

***TGbc Editor: Please modify clause 11.22.3.3.1 as follows (page 51, lines 4 to 31 of IEEE 802.11bc/D1.02)***

Enhanced Broadcast Services may be advertised using the Enhanced Broadcast Services ANQP-element (see 9.4.5.100). The element provides a list of zero or more enhanced broadcast services that are available from a STA. Each broadcast service advertisement may contain the time and duration of transmission, together with an identifier of the broadcast content, a content ID, and other information relevant to the broadcast service. The information present in each broadcast service advertisement is indicated in a Control field. The Control field, in addition, indicates if association is required to consume the broadcast service (Association Required bit). Each broadcast service advertisement may also contain the request method used to negotiate the starting time of the content (~~Request~~ Negotiation Method field), the scheduled next transmission (Next Tx Schedule field), the time until the content will end its current transmission (Time To Termination field), the authentication algorithm the content uses (Content Authentication Algorithm field), the destination address (and port for UDP over IP transport) used by the higher layer protocol of the EBCS traffic stream and the title (Title field) of the service in a human readable form.

STAs consuming the EBCS directly through the content address signaled in an Enhanced Broadcast Services ANQP-element may consider that the ANQP frame can be unsecured or unauthenticated and its content may be provided by a malicious user.

In case the Negotiation method field indicates Request using EBCS Request frames, then the Association required bit of the Control field must be set to 1. Otherwise, for the rest of negotiation methods, the value of the Association required bit of the Control field indicates the required association state of the STA requesting and consuming the broadcast service.

If the content is authenticated (nonzero values of the Content Authentication Algorithm field as defined in Table 9-340b) or requires negotiation (nonzero values of the Negotiation ~~Request~~ Method subfield as defined in Table 9-340a), the information provided by the Enhanced Broadcast Services ANQP-element is not enough to consume the service. The information on the authentication and negotiation method may be obtained in the next EBCS Info frame as indicated by the Content Authentication Algorithm field and in the Negotiation ~~Request~~ Method field included in the EBCS Broadcast Services ANQP-element. If the content follows the authentication scheme defined in 12.100.4 (No frame authentication with mandatory higher layer source authentication (HLSA)) as indicated by the Content Authentication Algorithm subfield equal to 0 as defined in Table 9-340b, the information provided is enough to consume the content.

A STA may use the Enhanced Broadcast Request ANQP-element to request registration (or unregistration) from a peer STA transmitting an EBCS traffic stream. This ANQP-element optionally allows the STA to provide the MAC address of the AP currently serving the EBCS traffic stream, which may not be the same as the one receiving the ANQP request.

NOTE—the requesting STA can be either an EBCS AP or an EBCS non-AP STA