IEEE P802.11
Wireless LANs

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| 802.11bc LB257 – Resolution for 2074, part 1 |
| Date: March , 2022 |
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Abstract:

This contribution addresses the discovery of available services from APs.

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***Editor: Add the following element to Table 9-128***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EBCS Tx Content IDs | 255 | TBD | No | Yes |

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***Editor: Add the following Element to section 9.4.2.XX***

**9.4.2.XXX EBCS Tx Content IDs**

**9.4.2.XXX.1 General**

The EBCS Tx Content IDs provides information on the Content IDs and Certificate used for EBCS of the AP transmitting the element. See Figure XX

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Element ID | Length | Element ID Extension | EBCS Tx Content IDs fields |
| Octets | 1 | 1 | 1 | variable |

**Figure XX: EBCS Tx Content IDs format**

The Element ID and Length fields are defined in 9.4.2.1.

The EBCS Tx Content IDs field contains one of the EBCS Tx Content IDs field described in 9.4.2.XXX.X

**9.4.2.XXX.X EBCS Tx Content IDs field**

The EBCS Tx Content IDs field includes information regarding the EBCS Content IDs broadcasted by this AP. Since Content IDs are only locally meaningful with respect to an AP’s certificate, this element also includes information on the Certificate of the AP.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | EBCS Content ID bitmapLength and Offset | EBCS Content ID bitmap | Length of Certificate Hash | Certificate Hash |
| Octets | 1 | variable | 1 | Variable |

**Figure X - EBCS Tx Content IDs field**

The EBCS Content ID bitmap Length and Offset field format is shown in Figure XX (EBCS Content ID bitmap Length and Offset field format):

|  |  |  |
| --- | --- | --- |
|  | Bitmap Offset | Bitmap Length |
| Bits | 4 | 4 |

**Figure XX: EBCS Content ID bitmap Length and Offset field format**

The Bitmap Offset subfield indicates the offset (e.g., the EBCS Content ID indicated in the most significant bit of the EBCS Content ID bitmap field), in units of two octets. For example, when set to 0 it indicates that the most significant bit of the EBCS Content ID bitmap corresponds to EBCS Content ID 0. When set to 1, it indicates that the most significant bit of the EBCS Content ID bitmap corresponds to EBCS Content ID 16.

The Bitmap Length subfield indicates the length of the EBCS Content ID bitmap field in octets +1.

When Bitmap Offset is set to 0 and Bitmap Length to 0xF, the most significant bit of the EBCS Content ID bitmap indicates EBCS Content ID 0. Bitmap Length equal to 0xF indicates the EBCS Content ID is 16 bytes in length, therefore the EBCS Content ID bitmap includes the information on 16x8=128 EBCS Content IDs.

Through the combination of the Bitmap Offset and Bitmap Length, an AP can provide the availability of up to 128 EBCS Content IDs simultaneously.

The EBCS Content ID bitmap includes one bit per EBCS Content ID (subject to the length restrictions set in the EBCS Content ID bitmap length and offset field). A bit in the EBCS Content ID bitmap is set to 0 if the EBCS is not transmitted and is set to 1 when the EBCS Content ID is transmitted by the AP.

The Length of Certificate Hash subfield indicates the length of the Certificate Hash field in octets.

The Certificate Hash subfield contains a hash of the Certificate of the AP provider used for EBCS.

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***Editor: Add the following row at the end of Table 9-60***

Table 9-60 – Beacon Frame Body

|  |  |  |
| --- | --- | --- |
| Order | Information | Notes |
| Last -2 | EBCS Tx Content IDs | The EBCS Tx Content ID is present if the length of dot11EBCSContentList is larger than 0. |
| Last -1  | Vendor Specific | One or more Vendor Specific elements are optionally present. These elements follow all other elements |
| Last  | MME | The MME is present if dot11BeaconProtectionEnabled is true at the AP. |

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***Editor: Modify the following row on Table 9-66***

Table 9-66 – Probe Request frame body

|  |  |  |
| --- | --- | --- |
| Order | Information | Notes |
| 19 | Extended Request | The Request element is optionally present if dot11RadioMeasurementActivated is true.The Request element is optionally present if dot11EBCSSupportActivated is True |

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***Editor: Modify the following row on Table 9-67***

Table 9-67 – Probe Response frame body

|  |  |  |
| --- | --- | --- |
| Order | Information | Notes |
| Last -2 | EBCS Tx Content IDs | The EBCS Tx Content ID is present if the length of dot11EBCSContentList is larger than 0. |