IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 802.11bc LB 257 resolution for CIDs assigned to Abhi (part 3) | | | | |
| Date: March 7, 2022 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Abhishek Patil | Qualcomm Inc. |  |  | appatil@qti.qualcomm.com |
| George Cherian |  |  |  |
| Jouni Malinen |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

This submission proposes resolutions for the following 2 comments submitted during LB 257 for 11bc D2.0: 2150, 2151

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Updated the resolution for CID 2150 based on feedback received when it was discussed (again) on 3/7/22
  + NOTE – changes for resolving CID 2151 are already approved and remain unaffected.
  + New changes compared to r0 for CID 2150 all changes tagged as [2150]:
    - Added a new (first) paragraph to clause 4.5.12.3 to clarify that the examples in the clause also apply when one or more EBCS AP is replaced with an EBCS STA affiliated with an EBCS proxy.
    - Added changes to 9.4.2.6 (Extended Capabilities element) and C.3 (MIB)
    - Updates to title and content of 11.55.3.2

***TGbc Editor: The baseline for the proposed changes is 802.11bc D2.1 and text from 11-22/0042r3 (Abhishek Patil)***

* 1. **Supplementary information on purpose**

***TGbc Editor: please update the following bullet in this subclause as shown below:***

* [2150]Defines a mechanism to enable IEEE 802.11 stations to transmit and receive broadcast data, both in cases where the transmitter(s) and the receiver(s) are associated in an infrastructure BSS and when they are not; and a mechanism to enable uplink data to be relayed to a specified destination in an external network.

**4.3.31 Enhanced broadcast services**

***TGbc Editor: please update the following paragraph in this subclause as shown below:***

Enhanced broadcast services (EBCS) provides enhanced transmission and reception of broadcast data, both where there is an association between the transmitter and the receiver(s) in an infrastructure BSS and in cases where there is no association between transmitter and receiver(s). Further, EBCS provides a service in which an EBCS proxy affiliated with an EBCS [2150]STA can relay the contents of a higher layer payload received from an EBCS non-AP STA to a destination typically within an external network. The relaying EBCS proxy can embed additional information.

* + - 1. **EBCS proxy operation**

***TGbc Editor: please update the following paragraph in this subclause as shown below:***

[2150]An EBCS proxy is a logical component affiliated with an EBCS STA, which might be collocated with the EBCS STA, that can relay an HLP payload carried in an EBCS UL frame received by an EBCS STA to a destination specified in the frame, typically within an external network.

***TGbc Editor: please update the following NOTE in this subclause as shown below:***

[2150]NOTE 1 —The communication between an EBCS STA and its affiliated EBCS proxy and the communication between an EBCS proxy and a specified destination are out of scope of this standard.

***TGbc Editor: please add the following NOTE at the end of this subclause as shown below:***

[2150]NOTE – An operator can install one or more EBCS STAs at a certain location with the intention of only providing relaying service. In such a deployment scenario, the EBCS STAs won’t beacon or establish an infrastructure BSS.

**4.5.12.3 Example configurations for EBCS proxy**

***TGbc Editor: please add the following paragraph as the first paragraph in this subclause as shown below:***

[2150]The examples shown in this subclause illustrate EBCS APs affiliated with a their respective EBCS proxies to provide relaying service. However, the same explanation would apply if any of the EBCS AP is replaced with an EBCS STA that is affiliated with an EBCS proxy and provides relaying service without establishing an infrastructure BSS.

**6.3.127.3.1 Function**

***TGbc Editor: please update the following paragraph in this subclause as shown below:***

[2150]This primitive indicates that an EBCS UL frame was received. It is valid only at an EBCS STA that is affiliated with an EBCS proxy and provides relaying service.

**9.4.2.26 Extended Capabilities element**

***TGbc Editor: please update the following entry in Table 9-153 as shown below:***

**Table 9-153—Extended Capabilities field**[2150]

|  |  |  |
| --- | --- | --- |
| **Bit** | **Information** | **Notes** |
| 91 | EBCS Relaying Supported | An EBCS STA that has dot11EBCSRelayingServiceSupported equal to true sets the EBCS Relaying Supported field to 1. Otherwise, an EBCS STA sets the field to 0. |

**11.55.3.1 General**

***TGbc Editor: please update the following paragraph in this subclause as shown below:***

The EBCS UL procedure allows a non-AP STA to transmit an EBCS UL frame with the expectation that there exists at least one EBCS [2150]STA that would relay the HLP payload carried in the frame to a destination specified in the frame.

**11.55.3.2** **EBCS UL operation at an EBCS STA affiliated with an EBCS proxy**[2150]

***TGbc Editor: please update the contents of this subclause as shown below:***

An EBCS [2150]STA that is affiliated with an EBCS proxy (see 4.5.12.2 (EBCS proxy operation) [2151]and 11.55.3.4 (EBCS UL operation at an EBCS proxy)) provides access to a relaying service in which the HLP payload carried in an EBCS UL frame received from an EBCS non-AP STA is relayed to a destination specified in the frame. [2150]

[2150]NOTE 1 – An EBCS STA affiliated with an EBCS proxy can be an AP that has established its own infrastructure BSS or a STA that provides a relaying service without establishing an infrastructure BSS.

***TGbc Editor: please move the NOTE from the end of this subclause to here:***

[2150]NOTE 2 – An EBCS AP that relays an HLP payload to the specified destination via its EBCS proxy can be in an unassociated state with the non-AP STA that transmitted the EBCS UL frame carrying the HLP payload.

An EBCS STA that provides access to a relaying service shall have dot11EBCSRelayingServiceSupported equal to true. Otherwise dot11EBCSRelayingServiceSupported shall not be true. [2150]

[2151]

[2151, 2150]

***TGbc Editor: please add the following subclause after 11.55.3.3 as shown below:***

**11.55.3.4 EBCS UL operation at an EBCS Proxy**[2151]

[2151]

**C.3 MIB detail**[2150]

***TGbc Editor: please update the following entry in this subclause as shown below:***

dot11EBCSRelayingServiceSupported OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This is a capability variable.

Its value is determined by device capabilities. This attribute when true,

indicates that the EBCS STA is affiliated with an EBCS proxy that provides

relaying service. The capability is disabled otherwise."

::= { dot11StationConfigEntry <ANA+10> }