802.11ba Draft Specification

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| Proposed Spec Text for Indication of Current Value of BSS Parameter Update Counter |
| Date: 2018-05-09 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Xiaofei Wang | InterDigital Inc. | South Wing, 4th Floor2 Huntington QuadMelville, NY 11747 | +1-631-622-4028 | Xiaofei.wang@interdigital.com |
| Hanqing Lou |
| Rui Yang |
| Ming Gan | Huawei |  |  | ming.gan@HUAWEI.COM |
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Abstract

This submission proposes two options for the spec text based on the following passed straw poll in May IEEE meeting.

* The current value of BPUC (BSS Parameter Update Counter) should be indicated to the STA before it enters WUR mode

The baseline for the proposed spec text is IEEE P802.11 Draft 0.2.

Revision History:

* Rev 0: Initial version of the document
* Rev 1: Adding WUR Operation element to WUR Mode Setup frame
* Rev 2: added co-author
* Rev 3: Added various editorial changes

***Discussion:***

***Two options of proposed spec text regarding to indicating the current value of the BSS Parameter Update Counter (BPUC) are presented***

***Option 1: Indicating the current value of the BSS Parameter Update Counter (BPUC) to WUR STAs using WUR Operation element (included in the PCR beacon)***

**TGba Editor: *Instruction: Modify 9.4.2.264 WUR Operation element as shown below***

* WUR Operation element

The WUR Operation element contains the set of parameters necessary to support the WUR operation. The format of the WUR Operation element is defined in Figure 9-589c (WUR Operation element format).

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Element ID** | **Length** | **Element ID Extension** | **Minimum Wake-up Duration** | **Duty Cycle Period Units** | **WUR Operation class** | **WUR Channel** | **WUR Beacon Period** | **WUR Parameters** |
| Octets: | 1 | 1 | 1 | TBD | TBD | 1 | 1 | TBD | 1 |
| * WUR Operation element format
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The Element ID, Length, and Element ID Extension fields are defined in 9.4.2.1 (General).

The Minimum Wake-up Duration field indicates the minimum on duration of the WUR duty cycle operation (see 31.4 (WUR duty cycle operation)). The encoding of the Minimum Wake-up Duration field is TBD.

The Duty Cycle Period Units field indicates the basic unit of the period of the WUR duty cycle operation (see 31.4 (WUR duty cycle operation)). The encoding of the Duty Cycle Period Units field is TBD.

The WUR Operating Class field indicates the operating class in use for transmission of WUR frame from the WUR AP to the WUR non-AP STA. The encoding is the same as the definition of Operating Class field in 9.4.1.22 (Operating Class and Channel field)

The WUR Channel field indicates the channel in use for transmission of WUR frame from the WUR AP to the WUR non-AP STA. The encoding is the same as the definition of Channel field in 9.4.1.22 (Operating Class and Channel field).

The WUR Beacon period field indicates the period of WUR Beacon frame.

The format of the WUR Parameters field is defined in Figure xxx (WUR Operation Parameters
field format).

The Counter field indicates the current value of the Counter subfield included in the broadcast WUR frames.

|  |  |  |  |
| --- | --- | --- | --- |
|  | B0   B3 | B4   B7 |  |
|  |  Counter | Reserved |
| Bits: | 4 | 4 |
| Figure 9-598d – WUR Parameters field format |

**TGba Editor: *Instruction: Modify 9.6.31.2 WUR Mode Setup Frame Format as shown below***

* WUR Mode Setup frame format

The WUR Mode Setup frame is an Action frame of category WUR. The Action field of a WUR Mode Setup frame contains the information shown in Table 9-421b (WUR Mode Setup frame Action field format).

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| * WUR Mode Setup frame Action field format
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| Order | Information |
| 1 | Category |
| 2 | WUR Action |
| 3 | Dialog Token |
| 4 | WUR Mode element (see 9.4.2.262 (WUR Mode element)) |
| 5 | WUR Operation element (see 9.4.2.264 (WUR Operation element)) |

The Element ID, Length, and Element ID Extension fields are defined in 9.4.2.1 (General).

The WUR Action field is defined in Table 9-421a (WUR Action field values).

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field).

The WUR Mode element field contains a WUR Mode element as defined in 9.4.2.262 (WUR Mode element).

The WUR Operation element field is optionally present and contains a WUR Operation element as defined in 9.4.2.264 (WUR Operation element).

***Option 2: Indicating the current value of the BSS Parameter Update Counter (BPUC) to WUR STAs using WUR Mode element (included in the WUR Action frame)***

**TGba Editor: *Instruction: Modify 9.4.2.262 WUR Mode element as shown below (Track Change On)***

* WUR Mode element

(..existing texts..)

The subfields of the WUR Parameters field sent from WUR AP are defined in Table 9-262c (Subfields of WUR Parameters field from WUR AP).

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| * Subfields of WUR Parameters field from WUR AP
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| **Subfield** | **Definition** | **Encoding** |
| WUR ID | A WUR identifier that uniquely identifies the WUR STA within the BSS of the AP  | An WUR identifier provided by the AP. |
| Duty cycle information | TBD | TBD |
| Current Counter Value | Current value of the Counter subfield contained in broadcast WUR frames | An unsigned integer between the value 0 – 15.  |

An WUR AP indicates the current value of the Counter Subfield included in broadcast WUR frames using the Current Counter Value subfield in the WUR Parameters field of the WUR Mode element.

(..existing texts..)

***Straw Poll:***

***Do you prefer Option 1 or Option 2 to be included in 802.11ba Draft 0.3?***

***Option 1/ Option 2/Abstain: 11/0/5***