IEEE P802.11
Wireless LANs

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| Comment Resolutions on WUR Mode element – Part 2 |
| Date: 2018-11-12 |
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Abstract

This submission proposes resolutions for multiple comments related to TGba D1.0 with the following CIDs:

* 8 CIDs: 64, 66, 633, 634, 635, 1089, 1090, 1091

R0: Original text

R1: Minor changes with green highlighted text

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGba Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGba Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGba Editor: Editing instructions preceded by “TGba Editor” are instructions to the TGba editor to modify existing material in the TGba draft. As a result of adopting the changes, the TGba editor will execute the instructions rather than copy them to the TGba Draft.***

# WUR Mode Element

| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- |
| 64 | 28.16 | 9.4.2.273 | Action Type field and WUR Mode Response Status are each one octet each. And yet only 6 values are used for Action Type and 3 for STATUS. Can think of many others to be added, even in next gen WUR. Suggest compress to 1 byte, and use 4 bits for AT, and 4 bits for WMRS. Actually now that i think of it. You dont need all the combinations in this AT field. Because in WUR Action frame you already have the WUR Action field. | As in comment. | Rejected.It is natural to leave the WUR Mode Response Status field separate from Action Type field.   |
| 66 | 30.06 | 9.4.2.273 | Please tie the encoding to the Action Type field values rather than who transmits the frame. I.e., suggest not having WUR Parameters from AP and from non-AP STA. Also suggest that the fields are shown in a figure rather than a table (comment applies to all these three tables 318c, d, and e). | As in comment. | Revised.Agreed in priciple.A figure and new Table are added to enable a good description of the Action Type field.TGba editor to make the changes shown in 11-18/1883r0 |
| 633 | 28.30 | 9.4.2.273 | The WUR Mode Element appears to contain more fields than are necessary, yielding WUR action frames that are longer than necessary. The WUR Action frames contain a WUR Action Field (defined in 9.6.32.1) with 254 reserved values. Yet the WUR Mode Element has an "Action Type" field that appears redundant. In the case of action types of the form "xxx Response" the WUR Parameter Control field and WUR Parameters are sent even when the WUR Mode Response Status is a denial, which is a case where those parameters are unnecessary. | Remove the "Action Type" field from the WUR Mode Element and replace the "WUR Mode Setup" action in 9.6.32.1 with actions corresponding to each of the non-reserved action types. Change the contents of the WUR Mode Element such that the WUR Mode Response Status is only present on "action types" (now Actions) that include "... Response". Change the contents of the WUR Mode Element such that the WUR Parameter Control and WUR Parameters not required in WUR Action responses when the WUR Mode Response Status is any type of denial. (Also, although not part of my "must be satisfied", the only current use of the WUR Parameter Control field is to indicate the presence of the Group ID list, so that field could be moved into the parameter set, allowing it to only be present in the parameters sent by the AP.) | Revised.First of all, I agreed that WUR Parameter Control and WUR Parameters subfield isn’t needed when a AP deny the WUR Mode request. This should be clarified. It will be resolved by CID 567 in 18/1865r0. Removing “Action Type” field and merging with WUR Action frame type is not good approach. The current design follows the common action frame design to have an action field after category field.TGba editor: No further changes are required. |
| 634 | 28.53 | 9.4.2.273 | The use of the "Enter WUR Mode Suspend" action (Table 9-318a action type value 4) is not defined and use of this action type is not specified in clause 31. | Either remove this row of Table 9-318a, or add text to clause 31 that defines the purpose of, and rules for use of, this action. | Revised.Similiar comment with CID 66.Agreed in priciple.A figure and new Table are added to enable a good description of the Action Type field.TGba editor to make the changes shown in 11-18/1883r0 |
| 635 | 28.57 | 9.4.2.273 | The use of the "Enter WUR Mode" action (Table 9-318a action type value 5) is not defined and use of this action type is not specified in clause 31. | Either remove this row of Table 9-318a, or add text to clause 31 that defines the purpose of, and rules for use of, this action. | Revised.Similiar comment with CID 66.Agreed in priciple.A figure and new Table are added to enable a good description of the Action Type field.TGba editor to make the changes shown in 11-18/1883r0 |
| 1089 | 28.34 | 9.4.2.273 | It is not very clear what the difference is between "Enter WUR Mode Request" and "Enter WUR Mode" in Table 9-318a. Please clarify | Please add explanation in spec text what the difference is between "Enter WUR Mode Request" and "Enter WUR mode" | Revised.Similiar comment with CID 66.Agreed in priciple.A figure and new Table are added to enable a good description of the Action Type field.TGba editor to make the changes shown in 11-18/1883r0TGba editor to make the changes shown in 11-18/1883r0 |
| 1090 | 28.34 | 9.4.2.273 | It is not very clear what the difference is between "Enter WUR Mode Suspend Request" and "Enter WUR Mode Suspend" in Table 9-318a. Please clarify | Please add explanation in spec text what the difference is between "Enter WUR Mode Suspend Request" and "Enter WUR mode suspend" | Revised.Similiar comment with CID 66.Agreed in priciple.A figure and new Table are added to enable a good description of the Action Type field.TGba editor to make the changes shown in 11-18/1883r0 |
| 1091 | 28.64 | 9.4.2.273 | Does "the non-AP STA's WUR Mode request operation" include "WUR Mode Suspend request"? It seems that WUR Mode and WUR Mode Suspend are two different modes. Please clarify. | Please clarify | Revised.Similiar comment with CID 66.Agreed in priciple.A figure and new Table are added to enable a good description of the Action Type field.TGba editor to make the changes shown in 11-18/1883r0 |

31.6 WUR power management procedure

31.6.1 WUR Mode Setup

**TGba Editor: Modify the 2nd paragraph and title of Table 31-1 as follows [66,633,634,635,1089,1090,1091]:**

To use the WUR service, a WUR non-AP STA uses the PCR component to exchange WUR Mode Setup frame with a WUR AP within the same infrastructure BSS and the detail is defined in Table 31-1 (WUR Mode setup frame exchange – Request & Response type), Table 31-1xxx (WUR Mode Setup/Teardown frame exchange -non Request & Response type), and Figure 31-1xxx (State Diagram for WUR non-AP STA).

Table 31-1—WUR Mode Setup frame exchange -Request & Response type

|  |  |  |  |
| --- | --- | --- | --- |
| **Request frame: Action Type field within a WUR Mode Setup frame transmitted from a WUR non-AP STA to a WUR AP STA** | **Response frame: Action Type field within a WUR Mode Setup frame transmitted from a WUR AP STA to a WUR non- AP STA** | **Response frame: WUR Mode Response Status field within a WUR Mode Setup frame transmitted from a WUR AP STA to a WUR non- AP STA** | **Status after the****completion of the****exchange** |
| Enter WUR ModeRequest | Enter WUR ModeResponse | Accept | The WUR non-AP STA enters WUR Mode. |
| Enter WUR ModeSuspend Request | Enter WUR ModeSuspend Response | Accept | The WUR non-AP STA enters WUR Mode Suspend |
| Enter WUR ModeRequest | Enter WUR ModeResponse | Denied | WUR service is not provided by the WUR AP to the WUR non-AP STA at this time |
| Enter WUR ModeSuspend Request | Enter WUR ModeSuspend Response | Denied | WUR service is not provided by the WUR AP to the WUR non-AP STA at this time |

**TGba Editor: Add following Table 31-1xxx after Table 31-1 as follows [66,633,634,635,1089,1090,1091]:**

Table 31-1xxx—WUR Mode Setup/Teardown frame exchange -non Request & Response type

|  |  |  |
| --- | --- | --- |
| **Frame type (and Action Type field value) transmitted from a WUR non-AP STA to a WUR AP STA**  | **Frame type transmitted from a WUR AP STA to a WUR non-AP STA**  | **Status after the****completion of the****exchange** |
| WUR Mode Setup frame(Action Type = Enter WUR Mode) | - | The WUR non-AP STA enters WUR Mode from WUR Mode Suspend |
| WUR Mode Setup frame(Action Type = Enter WUR Mode Suspend) | - | The WUR non-AP STA enters WUR Mode Suspend from WUR Mode  |
| WUR Mode Teardown frame | - | The WUR non-AP STA that is in WUR Mode or WUR Mode Suspend teards down WUR Mode or WUR Mode Suspend, relatively |
|  | WUR Mode Teardown frame |

**TGba Editor: Please add the following figure after Table 31-1xxx in subclause 31.6.1 as follows [66,633,634,635,1089,1090,1091]:**



**Figure 31-1xxx —State Diagram for WUR non-AP STA**