IEEE P802.11
Wireless LANs

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| LB235 CR Subclause 9.4.2.273  |
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| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Yongho Seok | MediaTek Inc. | 2840 Junction Ave, San Jose, CA 95134 |  | yongho.seok@mediatek.com  |
| Jianhan Liu  | MediaTek Inc. |  |  |  |
| Chao-Chun Wang | MediaTek Inc. |  |  |  |
| James Yee  | MediaTek Inc. |  |  |  |

Abstract

This submission proposes resolutions of comments received from TGba LB235.

(The proposed change is based on TGba Draft 1.0.)

* CIDs: 696, 575, 697, 876, 1014, 993, 364, 777, ~~1099~~, 576, 455, 995, 1102, 710, 711, 781, 1018, 517, 604, 605 (~~20~~19 CIDs)

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.***

| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- |
| 696 | 30.16 | 9.4.2.273 | The name of the subfield "WUR Channel Offset" should be changed to "FDMA WUR Channel Offset" since this information is only used for the WUR FDMA operation. With the current naming, it sounds like transmitting WUR Beacon and WUR Wake-up frames can be transmitted on two different channels even in non- WUR FDMA mode. | Same as the comment | Revised- Agree in principle. TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 575 | 30.16 | 9.4.2.273 | Typos | Change Definition text to, "Indicates the channel offset for the channel on which WUR Wake-up frames are to be transmitted, relative to ..." | Revised- Agree in principle. Based on the similar comment of CID 697, we propose to change the definition to “Indicates the offset of the WUR channel on which WUR Wake-up frames are transmitted…”TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 697 | 30.16 | 9.4.2.273 | The meaning of the following sentence is not clear: "Indicates the channel offset to be transmitted the WUR Wake up frame relative to the WUR primary channel (see 31.9 (WUR FDMA operation))." Please rephrase as suggested in the proposed change. | Rephrase as follows: "Indicates the offset of the WUR channel on which a WUR Wake-up frame is transmitted relative to the WUR primary channel on which a WUR Beacon frame is transmitted (see 31.9 (WUR FDMA operation))." | Revised- Agree in principle. TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 876 | 30.16 | 9.4.2.273 | Definition of WUR Channel Offset can be made clearer | Change the definition to:Indicates the offset of the channel in which the WUR Wake-up frame is to be transmitted relative to the the WUR primary channel (see 31.9 (WUR FDMA operation)). | Revised- Agree in principle. Based on the similar comment of CID 697, we propose to change the definition to “Indicates the offset of the WUR channel on which WUR Wake-up frames are transmitted…”TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 1014 | 30.16 | 9.4.2.273 | The definition of WUR Channel Offset subfield is not clear. Should it read "Indicates the channel offset \*of\* the WUR Wake-up frame ..."? | As in comment. | Revised- Agree in principle. Based on the similar comment of CID 697, we propose to change the definition to “Indicates the offset of the WUR channel on which WUR Wake-up frames are transmitted…”TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 993 | 30.17 | 9.4.2.273 | In the definition of the WUR Channel Offset in Table 9-318c, I think that the sentence needs "in", "via" or "by" | Indicates the channel offset to be transmitted by the WUR Wake-up frame relative to the WUR primary channel. | Revised- Agree in principle. Based on the similar comment of CID 697, we propose to change the definition to “Indicates the offset of the WUR channel on which WUR Wake-up frames are transmitted…”TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 364 | 30.34 | 9.4.2.273 | Can you add a drawing to show how the WUR Channel Offsets look for 40, 80 and 160MHz channels? Table 9-318d is a little confusing and a picture would be worth 1000 words here | Add drawing of 40, 80 and 160 MHz channel, with a subsecting showing the Channel Offset numbers in the 20MHz subchannels. | Revised- For the clarification, an upper 20MHz channel is changed to a higer frequency 20 MHz channel and a lower 20MHz channel is changed to a lower frequency 20 MHz channel.And, 160 MHz channel is not supported in WUR FDMA operation. TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 777 | 30.45 | 9.4.2.273 | It is not clear where are the locations of the "Lower" and "Upper" 20 MHz channel. | define "Lower and "Upper" | Revised- For the clarification, an upper 20MHz channel is changed to a higer frequency 20 MHz channel and a lower 20MHz channel is changed to a lower frequency 20 MHz channel.TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| ***TGba Editor: Replace “WUR Channel Offset” with “WUR FDMA Channel Offset” throughout TGba Draft 1.1. (#696)**** WUR Mode element

***TGba Editor: Change Table 9-318c as the following: (#696, 575, 697, 876, 1014, 993)***

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| * Subfields of WUR Parameters field from WUR AP
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| **Subfield** | **Definition** | **Encoding** |
| WUR FDMA (#696) Channel Offset | Indicates the ~~channel~~ offset of the WUR channel on which ~~to be transmitted the~~ WUR Wake-up frames are transmitted, (#575, 697, 876, 1014, 993) relative to the WUR primary channel (see 31.9 (WUR FDMA operation)).  | The size of the field is 3 bits. The encoding is described in Table 9-318d (WUR Channel Offset subfield encoding). |

***TGba Editor: Change Table 9-318d as the following: (#364, 777)***

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| * WUR Channel Offset subfield encoding
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| WUR Channel Offset subfield | Meaning |
| 0 | The WUR Wake-up frames are to be transmitted in the WUR primary channel. |
| 1 | The WUR Wake-up frames are to be transmitted in first ~~upper~~ higher frequency 20MHz channel relative to the WUR primary channel. |
| 2 | The WUR Wake-up frames are to be transmitted in first lower frequency 20MHz channel relative to the WUR primary channel. |
| 3 | The WUR Wake-up frames are to be transmitted in second ~~upper~~ higher frequency 20MHz channel relative to the WUR primary channel. |
| 4 | The WUR Wake-up frames are to be transmitted in second lower frequency 20MHz channel relative to the WUR primary channel. |
| 5 | The WUR Wake-up frames are to be transmitted in third ~~upper~~ higher frequency 20MHz channel relative to the WUR primary channel. |
| 6 | The WUR Wake-up frames are to be transmitted in third lower frequency 20MHz channel relative to the WUR primary channel. |
| 7 | Reserved |

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| ~~1099~~ | ~~31.43~~ | ~~9.4.2.273~~ | ~~A non-AP STA should have the capability to indicate the preferred WUR channel to its AP since there may be quite a bit of frequency selectivity for a 4 MHz wide channel. Currently, a non-AP STA doesn't have any remedy if it is assigned a bad channel by its WUR AP.~~ | ~~add a row on "preferred channel" in Table 9-318e and the associated procedures so that a non-AP STA can have some remedy if it is assigned to a bad channel by its AP.~~ |  |
| 576 | 33.55 | 9.4.2.274 | WUR Channel Switching Supported field has inverted logic. | Change Ecoding description to say set to 0 if channel switching is \_not\_ supported, and set to 1 if it \_is\_ supported. | Revised- Agree in principle. TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 455 | 33.56 | 9.4.2.274 WUR Capabilities Element | Selection of the WUR Channel Switching Support capability bit 'On" value is opposite of the other bit oriented selections in the WUR Capabilities Sub-Fields. | Within the Encoding column, the 'on'/'active' state of the WUR channel switching capability should be a '1' to reflect support. Text should be:"Set to 1 if the WUR channel switching capability is supported.Set to 0 if the WUR channel switching capability is not supported." | Revised- Agree in principle. TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 995 | 33.56 | 9.4.2.274 | Is the default for WUR channel switching to be supported or notsupported? Table 9-318f -- subfields of the WUR Capabilities information field sets "WUR Channel Switching Support" to 0 if the WUR channel switching capability is supported and 1 if not. On page 53, clause 31.5, we have "A WUR non-AP STA whose dot11WURChannelSwitchImplemented is false shall set the WUR Channel 0." | Set to 0 if the WUR channel switching capability is not supported. Set to 1 if the WUR channel switching capability is supported. | Revised- Agree in principle. TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 1102 | 33.56 | 9.4.2.274 | Based on normal practice, if a capability is supported, the indication bit is set to "1"; otherwise, the indication bit is set to "0". The description for WUR Channel Switching support seem to do it in the opposite way | change the setting of the bit "WUR Channel Switching Support" to align with the usual practice in 802.11 spec. | Revised- Agree in principle. TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 710 | 33.56 | 9.4.2.274 | The following subfield "WUR Channel Switching Support" is not clear whether this is for FDMA or it also applies to non-FDMA operation. Please replace "WUR Channel Switching Support" with the following "WUR FDMA Channel Switching Support" | As shown in the comment. | Revised- Agree in principle. Change the field name as suggested by the commenter. TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 711 | 33.56 | 9.4.2.274 | The following description "Indicates whether the WUR channel switching capability for receiving WUR Beacon and WUR Wake-up frames that are transmitted in different channels is enabled or disabled (see 31.9 (WUR FDMA operation))." is not clear whether this applies only to the FDMA operation or not. | Replace "Indicates whether the WUR channel switching capability for receiving WUR Beacon and WUR Wake-up frames that are transmitted in different channels is enabled or disabled (see 31.9 (WUR FDMA operation))."with the following"Indicates whether the WUR channel switching capability for receiving WUR Beacon and WUR Wake-up frames that are transmitted in different channels is enabled or disabled for the WUR FDMA operation (see 31.9 (WUR FDMA operation))." | Revised- Agree in principle. Add “…for the WUR FDMA operation” at the end of the sentence. TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 781 | 33.56 | 9.4.2.274 | "...that are transmitted in different channels ....". It is not clear those channels are different from which channel; the WUR Channel? Or a another channel? | Clarify | Revised- Agree in principle. Based on the similar comment of CID 1018, the following clarification texts are added. “Indicates whether the WUR FDMA channel switching capability for receiving WUR Beacon and WUR Wake-up frames that are transmitted in different WUR channels from the WUR primary channel (#1018) is…”TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 1018 | 33.61 | 9.4.2.274 | The definition of WUR Channel Switching Support reads "Indicates whether the WUR channel switching capability for receiving ... frames that are transmitted in different channels is enabled or disabled". It is not clear the channels are different from channels of what. | Change it to read "Indicates whether the WUR channel switching capability for receiving ... frames that are transmitted in different channels from the WUR primary channel is enabled or disabled". | Revised- Agree in principle. The following clarification texts are added. “Indicates whether the WUR FDMA channel switching capability for receiving WUR Beacon and WUR Wake-up frames that are transmitted in different WUR channels from the WUR primary channel (#1018) is…”TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 517 | 33.65 | 9.4.2.274 | WUR Channel Switching Support subfield should be reserved for a WUR AP. | Add "Reserved for a WUR AP" at the end of the Encoding column for the WUR Channel Switching Support row | Revised- Agree in principle. TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| 604 | 33.55 | 9.4.2.274 | Inconsistent semantics for the WUR Channel Switching Support subfield. | The Definition column says this is whether the feature is enabled/disabled, the Encoding column says it is whether the feature is supported or not. The MIB definition appears to say it should be "support or not". | Revised- TGba editor makes changes as shown in the as specified in 11-19/0012r1. |
| * WUR Capabilities element

***TGba Editor: Change Table 9-318f as the following: (#710, 711, 576, 455, 995, 1102, 781, 1018)***

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| * Subfields of the WUR Capabilities Information field
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| Subfield | Definition | Encoding |
| WUR FDMA (#710) Channel Switching Support | Indicates whether the WUR FDMA channel switching capability for receiving WUR Beacon and WUR Wake-up frames that are transmitted in different WUR channels from the WUR primary channel (#1018) is ~~enabled or disabled~~ supported or not for the WUR FDMA operation (#604, 711) (see 31.9 (WUR FDMA operation)). | For a WUR non-AP STA: (#517) Set to 0 if the WUR FDMA channel switching capability is not supported. Set to 1 if the WUR FDMA channel switching capability is ~~not~~ supported.Reserved for a WUR AP. (#517) |

***TGba Editor: Replace “WUR Channel Switching Support” with “WUR FDMA Channel Switching Support” throughout TGba Draft 1.1. (#710)******TGba Editor: Replace “dot11WURChannelSwitchImplemented” with “dot11WURFDMAChannelSwitchImplemented” throughout TGba Draft 1.1. (#710)*** |
| 605 | 101.65 | C.3 | dot11WURChannelSwitchImplemented appears to be a static implementation capability (supported or not). It should have MAX-ACCESS of read-only (or none). | Change MAX-ACCESS to "read-only" | Accepted |