IEEE P802.11  
Wireless LANs

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| Comment resolutions for Annex B PICS | | | | |
| Date: 2018-1-7 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Minyoung Park | Intel Corporation |  |  | Minyoung.park@intel.com |

Abstract

This submission proposes resolutions for multiple comments related to TGba D1.0 with the following CIDs (12 CIDs):

* 2, 239, 307, 312, 344, 504, 601, 769, 872, 914, 1006, 1143

Revisions:

* Rev 0: Initial version of the document.

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.***

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| **CID** | **Commenter** | **Clause Number** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 2 | Albert Petrick | Annex B | 1 | 97 | Missing Annex B for PICS |  | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 239 | Emily Qi |  |  |  | Need to add PICS in Annex B |  | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 307 | Graham Smith | B | 101 | 1 | Need to add PICS | Add PICS | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 312 | Hiroyuki Motozuka | B | 97 | 1 | Please add PICS amendment | as in comment | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 344 | Jae Seung Lee | Annex B | 96 | 1 | PICS section is empty. | Add PICS proforma related to 802.11ba. | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 504 | Kazuyuki Sakoda | Annex B | 101 | 1 | PICS table is entirely missing. (Annex B) | Add proper table entries. | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 601 | Mark Hamilton | B | 101 | 1 | Annex B (PICS) updates are missing | Add PICS items for WUR to the amendment | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 769 | Osama Aboulmagd | Annex B | 96 | 1 | The draft doesn't include an Annex B on PICS. It is hard to find out what is M and what is O without including an Annex B | Add Annex B | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 872 | Robert Stacey |  |  |  | Draft is missing its PICS | Add PICS | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 914 | Rojan Chitrakar | Annex B | 101 | 1 | Annex B is missing | Add Annex B for WUR | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 1006 | Thomas Handte | B | 100 | 1 | There is no PICS | Please add PICS | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |
| 1143 | Yasuhiko Inoue |  | 97 | 1 | No PICS provided. | "Annex B Protocol Implementation Conformance Statement (PICS) proforma" must be provided. | Revised.  Agree with the commenter.  TGba editor to make the changes proposed in doc.: IEEE 802.11-19/0024r1 to the next revision of the TGba draft. |

**TGba Editor: *Add the following subclauses below in TGba Draft 1.1 based on REVmd D1.6 as follows (#CID 2, 239, 307, 312, 344, 504, 601, 769, 872, 914, 1006, 1143):***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| * IUT configuration | | | | |
| Item | IUT configuration | References | Status | Support |
|  | What is the configuration of the IUT? |  |  |  |
| … |  |  |  |  |
| \* CFOFDM | Orthogonal frequency division multiplexing (OFDM) PHY | — | O.2  CFHT5G:M  CFTVHT:M  CFS1G:M(11ah)  CFWUR:M | Yes  No  |
| … |  |  |  |  |
| \*CFWUR | Wake-up Radio features | 9.4.2.273 (WUR Capabilities element) | O | Yes  No  N/A  |

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| --- | --- | --- | --- | --- |
| * MAC frames | | | | |
| Item | MAC frame | References | Status | Support |
|  | Is transmission of the following MAC frames supported? | 9 (Frame formats) |  |  |
| … |  |  |  |  |
| (11ak)FT52 | EPD MSDU | 5.1.4 (MSDU format), 11.52 (EPD operation(11ak)) | O | Yes  No  N/A |
| FT53 | WUR Beacon frame | 9.10.3.1 (WUR Beacon frame format) | (CFWUR AND CFAP): M | Yes  No  N/A |
| FT54 | WUR Wake-up frame | 9.10.3.2 (WUR Wake-up frame format) | (CFWUR AND CFAP): M | Yes  No  N/A |
| FT55 | WUR Discovery frame | 9.10.3.3 (WUR Discovery frame format) | (CFWUR AND CFAP): O | Yes  No  N/A |
| FT56 | WUR Vendor Specific frame | 9.10.3.4 (WUR Vendor Specific frame format) | (CFWUR AND CFAP): O | Yes  No  N/A |
| FT57 | WUR Mode Setup frame | 9.6.32.2 (WUR Mode Setup frame format) | CFWUR: M | Yes  No  N/A |
| FT58 | WUR Mode Teardown frame | 9.6.32.3 (WUR Mode Teardown frame format) | CFWUR:M | Yes  No  N/A |
|  | Is reception of the following MAC frames supported? | Clause 9 (Frame formats) |  |  |
| … |  |  |  |  |
| (11ak)FR53 | EPD MSDU | 5.1.4 (MSDU format), 11.52 (EPD operation(11ak)) | FT52:M | Yes  No  N/A  |
| FR54 | WUR Beacon frame | 9.10.3.1 (WUR Beacon frame format) | (CFWUR AND CFSTAofAP): M | Yes  No  N/A |
| FR55 | WUR Wake-up frame | 9.10.3.2 (WUR Wake-up frame format) | (CFWUR AND CFSTAofAP): M | Yes  No  N/A |
| FR56 | WUR Discovery frame | 9.10.3.3 (WUR Discovery frame format) | (CFWUR AND CFSTAofAP): O | Yes  No  N/A |
| FR57 | WUR Vendor Specific frame | 9.10.3.4 (WUR Vendor Specific frame format) | (CFWUR AND CFSTAofAP): O | Yes  No  N/A |
| FR58 | WUR Mode Setup frame | 9.6.32.2 (WUR Mode Setup frame format) | CFWUR: M | Yes  No  N/A |
| FR59 | WUR Mode Teardown frame | 9.6.32.3 (WUR Mode Teardown frame format) | CFWUR:M | Yes  No  N/A |

B.4.28 Wake-up Radio (WUR) features

B.4.28.1 WUR MAC features

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Protocol capability | References | Status | Support |
|  | Are the following MAC protocol features supported? |  |  |  |
| WURM1 | WUR capabilities signaling |  | CFWUR:M | Yes  No  N/A  |
| WURM1.1 | WUR Capabilities element | 9.4.2.273 (WUR Capabilities element) | CFWUR:M | Yes  No  N/A  |
| WURM1.2 | Signaling of STA capabilities in  Probe Request, (Re)Association  Request frames | 9.3.3.6 (Association Request frame format), 9.3.3.8 (Reassociation Request frame format), 9.3.3.10 (Probe Request frame format), 9.4.2.273 (WUR Capabilities element) | (CFWUR AND CFSTAofAP):M | Yes  No  N/A  |
| WURM1.3 | Signaling of STA and BSS capabilities in Beacon, Probe Response,  (Re)Association Response frames | 9.3.3.3 (Beacon frame format), 9.3.3.7 (Association Response frame format), 9.3.3.9 ( Reassociation Response frame format), 9.3.3.11 (Probe Response frame format), 9.4.2.273 (WUR Capabilities element) | (CFWUR AND CFAP):M | Yes  No  N/A  |
| WURM2 | Signaling of WUR operation | 9.4.2.274 (WUR Operation element) | (CFWUR AND CFAP):M | Yes  No  N/A  |
| WURM2.1 | Signaling of WUR operation in Beacon, Probe Response,  (Re)Association Response frames | 9.3.3.3 (Beacon frame format), 9.3.3.7 (Association Response frame format), 9.3.3.9 ( Reassociation Response frame format), 9.3.3.11 (Probe Response frame format), 9.4.2.274 (WUR Operation element) | (CFWUR AND CFAP):M | Yes  No  N/A  |
| WURM3 | Signaling of WUR mode | 9.4.2.275 (WUR Mode element) | CFWUR: M | Yes  No  N/A  |
| WURM3.1 | Signaling of WUR mode in WUR Mode Setup, WUR Mode Teardown | 9.6.32.2 (WUR Mode Setup frame format), 9.6.32.3 (WUR Mode Teardown frame format), 9.4.2.275 (WUR Mode element) | CFWUR: M | Yes  No  N/A  |
| WURM4 | Signaling of WUR discovery | 9.4.2.276 (WUR Discovery element) | (CFWUR AND CFAP): O | Yes  No  N/A  |
| WURM4.1 | Signaling of WUR discovery in Beacon, Probe Response frames | 9.3.3.3 (Beacon frame format), 9.3.3.11 (Probe Response frame format) | (CFWUR AND CFAP): O | Yes  No  N/A  |
| WURM5 | WUR duty cycle operation | 31.5 (WUR duty cycle operation) | CFWUR: O | Yes  No  N/A  |
| WURM6 | WUR mode setup in WUR power management procedure | 31.6.2 (WUR Mode Setup) | CFWUR: M | Yes  No  N/A  |
| WURM7 | WUR non-AP STA operation in WUR power management procedure | 31.6.3 (WUR non-AP STA operation) | (CFWUR AND CFSTAofAP): M | Yes  No  N/A  |
| WURM8 | WUR AP operation in WUR power management procedure | 31.6.4 (WUR AP operation) | (CFWUR AND CFAP): M | Yes  No  N/A  |
| WURM9 | Wake-up operation | 31.7 (Wake-up Operation) | CFWUR: M | Yes  No  N/A  |
| WURM10 | Protected WUR frames | 31.8 (Protected WUR frames) | CFWUR: O | Yes  No  N/A  |
| WURM11 | WUR FDMA operation | 31.9 (WUR FDMA operation) | CFWUR: O | Yes  No  N/A  |
| WURM12 | WUR Discovery | 31.10 (WUR Discovery) | CFWUR: O | Yes  No  N/A  |

B.4.28.1 WUR PHY features

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| Item | Protocol capability | References | Status | Support |
|  | Are the following PHY protocol features supported? |  |  |  |
| WURP1 | PHY operating modes |  |  |  |
| WURP1.1 | Operation according to Clause 17  (Orthogonal frequency division multiplexing (OFDM) PHY specification) (Orthogonal frequency division  multiplexing (OFDM) PHY specification) | 32.1 (Introduction) | CFWUR: M | Yes  No  N/A  |
| WURP2 | WUR PPDU format |  |  |  |
| WURP2.1 | WUR PPDU with 20 MHz channel width, LDR, and single stream | 32.1 (Introduction) | CFWUR: M | Yes  No  N/A  |
| WURP2.2 | WUR PPDU with 20 MHz channel width, HDR, and single stream | 32.1 (Introduction) | CFWUR: O | Yes  No  N/A  |
| WURP2.3 | WUR preamble | 32.2.8 (WUR preamble) | CFWUR: M | Yes  No  N/A  |
| WURP2.4 | WUR-Data field | 32.2.9 (WUR-Data field) | CFWUR: M | Yes  No  N/A  |
| WURP3 | FDMA WUR PPDU | 32.1 (Introduction) | CFWUR: O | Yes  No  N/A  |
| WURP4 | Manchester encoding for the Data field | 32.2.9.2 (WUR-Data field for low data rate and high data rate) | CFWUR: M | Yes  No  N/A  |