IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| LB241 CR WUR FDMA | | | | |
| Date: 2019-09-09 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Yongho Seok | MediaTek Inc. | 2840 Junction Ave, San Jose, CA 95134 |  | [yongho.seok@mediatek.com](mailto:yongho.seok@mediatek.comnewracom.com) |
| Jianhan Liu | MediaTek Inc. |  |  |  |
| Chao-Chun Wang | MediaTek Inc. |  |  |  |
| James Yee | MediaTek Inc. |  |  |  |

Abstract

This submission proposes resolutions of comments received from TGba LB241.

(The proposed change is based on TGba Draft 3.0.)

* CIDs: 3312, 3374, 3011, 3236 (4 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** | **Line** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- | --- |
| 3312 | 127.00 | 44 | 29.11.1 | "... which can be any WUR frame that does not cause a WUR STA on the primary channel to wake up, ..." The intent should be the WUR primary channel, not the primary channel where the BSS is operating on. | Change it to read "... which can be any WUR frame that does not cause any of the WUR STAs on the WUR primary channel to wake up, ...". | Rejected-  A WUR STA is already woke up to receive the WUR frame on the WUR primary channel.  Also the WUR primary channel and the primary channel of the BSS can be different.  The current spec text is correct. |
| 3374 | 105.00 | 50 | 29.2 | this paragraph is incorrect. The WUR FDMA support is 0 (if this is transmitted by the non-AP STA), then the AP shall assign a WUR channel that is the same as the WUR primary channel. It is possible that an unassociated non-AP transmits a WUR FDMA support set to 0, while it doesn't have a WUR channel. | please rewrite this paragraph correctly. | Revised-  Agree in principle.  The cited paragraph is not clear because there is no description who sets the the WUR FDMA Support subfield of the WUR Capabilities Information field of the WUR Capabilities element is set to 0.  TGba editor makes changes as specified in 11-19/xxxxr0 for CID 3374. |
| **Proposed Text Updates: CID 3374**  ***TGba Editor: Modify the sub-clause 29.2 (WUR channel, WUR primary channel, and WUR discovery channel) as the following:***  ~~When the WUR FDMA Support subfield of the WUR Capabilities Information field of the WUR Capabilities element is set to 0, the WUR channel is equal to the WUR primary channel. Otherwise, the WUR channel may be different from the WUR primary channel (see 29.11 (WUR FDMA operation)).~~  When the WUR FDMA operation is used, the WUR channel may be different from the WUR primary channel (see 29.11 (WUR FDMA operation)). Otherwise, the WUR channel is equal to the WUR primary channel. | | | | | | |
| 3011 |  |  | 29.11.1 | CID 2056 is rejected with the motivation that it fails to identify changes in sufficient details ...Proposed change "a WUR FDM PPDU may contain one or more WUR frames in each subchannel" | Change "a WUR FDM PPDU may contain one or more WUR frames in each subchannel" | Revised-  Currently, the WUR FDMA (30.3.3 (WUR FDMA PPDU format)) can only have one WUR-Sync field and one WUR-Data field.  But, because the padding can be any WUR frame, the padding can be considered as another WUR frame depending on an implementation.  TGba editor replaces “one WUR frame transmission” with “at least one WUR frame transmission” in 29.11.1 (WUR FDMA channel access) - 3 occurances. |
| 3236 | 175.00 | 13 | Annex C | The Annex C text should add to dot11smt and does not. | Add smt variable to MIB | Revised-  Agree in principle.  TGba editor makes changes as specified in 11-19/xxxxr0 for CID 3236. |
| **Proposed Text Updates: CID 3236**  C.3 MIB Detail  -- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- \* Major sections  -- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- Station ManagemenT (SMT) Attributes  -- DEFINED AS "The SMT object class provides the necessary support  -- at the station to manage the processes in the station such that  -- the station may work cooperatively as a part of an IEEE 802.11  -- network."  ***TGba Editgor: Change the comment list following the dot11smt definition as follows (not all lines shown):***  dot11smt OBJECT IDENTIFIER ::= { ieee802dot11 1 }  -- dot11GLKLinkMetricsTable ::= { dot11smt 41 }  -- dot11HEStationConfigTable ::= { dot11smt 42 }  -- dot11PPEThresholdsMappingsTable ::= { dot11smt 43 }  -- dot11WURStationConfigTable ::= { dot11smt <ANA> }  ***TGba Editgor: Change Dot11StationConfigEntry as follows to maintain the order based on the assigned number:***  Dot11StationConfigEntry::= SEQUENCE  {  …,  dot11LocallyAdministeredMACConfig Unsigned32,  dot11WUROptionImplemented TruthValue,  ~~dot11WURBeaconPeriod Unsigned32,~~  ~~dot11WURFDMAChannelSwitchImplemented TruthValue,~~  ~~dot11WURDiscoveryImplemented TruthValue,~~  ~~dot11WURNeighborDiscoveryImplemented TruthValue,~~  ~~dot11WURDiscoveryPeriod Unsigned32,~~  ~~dot11RSNAWURFrameProtectionActivated TruthValue,~~  }  ***TGba Editgor: Make dot11WURStationConfig TABLE as follows:***  -- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- \* dot11WURStationConfig TABLE  -- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  dot11WURStationConfigTable OBJECT-TYPE  SYNTAX SEQUENCE OF Dot11WURStationConfigEntry  MAX-ACCESS not-accessible  STATUS current  DESCRIPTION  "Station Configuration attributes. In tabular form to allow for multiple instances on an agent."  ::= { dot11smt <ANA> }  dot11WURStationConfigEntry OBJECT-TYPE  SYNTAX Dot11WURStationConfigEntry  MAX-ACCESS not-accessible  STATUS current  DESCRIPTION  "An entry (conceptual row) in the dot11WURStationConfig Table.  ifIndex - Each IEEE 802.11 interface is represented by an ifEntry. Interface tables in this MIB module are indexed by ifIndex."  INDEX { ifIndex }  ::= { dot11WURStationConfigTable 1 }  Dot11WURStationConfigEntry ::=  SEQUENCE {  dot11WURBeaconPeriod Unsigned32,  dot11WURFDMAChannelSwitchImplemented TruthValue,  dot11WURDiscoveryImplemented TruthValue,  dot11WURNeighborDiscoveryImplemented TruthValue,  dot11WURDiscoveryPeriod Unsigned32,  dot11RSNAWURFrameProtectionActivated TruthValue  }  dot11WURBeaconPeriod OBJECT-TYPE  SYNTAX Unsigned32(1..65535)  MAX-ACCESS read-write  STATUS current  DESCRIPTION  "This is a control variable. It is written by an external management entity. Changes take effect for the next MLME-START.request primitive. For WUR APs, this attribute specifies the number of TUs that a station uses for scheduling WUR Beacon transmissions. This value is transmitted in Beacon, Probe Response frames, Association Response frames, or Reassociation Response frames."  ::= { dot11WURStationConfigEntry ~~187~~ 1 }  dot11WURFDMAChannelSwitchImplemented OBJECT-TYPE  SYNTAX TruthValue  MAX-ACCESS read-only  STATUS current  DESCRIPTION  "This is a capability variable.  Its value is determined by device capability. This attribute when true, indicates that the STA is capable of switching the WUR channel for receiving WUR Beacon and WUR Wake-up frames that are transmitted in different channels (see 29.11 (WUR FDMA operation)). The capability is disabled otherwise."  DEFVAL { false }  ::= { dot11WURStationConfigEntry ~~188~~ 2}  dot11WURDiscoveryImplemented OBJECT-TYPE  SYNTAX TruthValue  MAX-ACCESS read-only  STATUS current  DESCRIPTION  "This is a capability variable. This attribute when true, indicates that for an AP, the AP is capable of transmitting WUR Discovery frames, and for a non-AP STA, the non-AP STA is capable of WUR Discovery procedure (i.e., receiving WUR Discovery frames)(see 29.12 (WUR Discovery)). The capability is disabled otherwise."  DEFVAL { false }  ::= { dot11WURStationConfigEntry ~~189~~ 3}  dot11WURNeighborDiscoveryImplemented OBJECT-TYPE  SYNTAX TruthValue  MAX-ACCESS read-only  STATUS current  DESCRIPTION  "This is a capability variable. This attribute when true, indicates that the STA is capable of transmitting WUR Discovery element to advertise the WUR discovery channels used by neighboring WUR APs (see 29.12 (WUR Discovery)). The capability is disabled otherwise."  DEFVAL { false }  ::= { dot11WURStationConfigEntry ~~190~~ 4}  dot11WURDiscoveryPeriod OBJECT-TYPE  SYNTAX Unsigned32(1..65535)  MAX-ACCESS read-write  STATUS current  DESCRIPTION  "This is a control variable. It is written by an external management entity. Changes take effect for the next MLME-START.request primitive. For WUR STAs, this attribute specifies the number of TUs that a station uses for scheduling WUR Discovery frame transmissions. This value is transmitted in Beacon or Probe Response frames."  ::= { dot11WURStationConfigEntry ~~193~~ 5}  dot11RSNAWURFrameProtectionActivated OBJECT-TYPE  SYNTAX TruthValue  MAX-ACCESS read-write  STATUS current  DESCRIPTION  "This is a control variable. It is written by an external management entity. Changes take effect for the next MLME-START.request primitive or MLME-JOIN.request primitive. This attribute, when true, indicates that the station, if a WUR AP, is capable of transmitting protected WUR frames, or if a WUR non-AP STA, is capable of receiving protected WUR frames. Otherwise, the capability is disabled."  DEFVAL { false }  ::= { dot11WURStationConfigEntry ~~196~~ 6}  -- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- \* End of dot11VHTStationConfigTable TABLE  -- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | | | | | | |