IEEE P802.11  
Wireless LANs

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| Availability Window parameters modification | | | | |
| Date: 2018-11-15 | | | | |
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Abstract

This submission addresses the following CIDs from TGaz CC28 and based on TGaz draft 0.5.4:

39, 167.

The proposed resolution uses the content in document 11- 11-18-1604-01-00az-Availability\_window\_update.pptx

History:

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Cleaned up and updated dates in the header.
* Rev 2: Additional text cleanup to conform to the terms used in the baseline and in TGaz D0.5
* Rev 3: Added references to measurement exchange claueses in 11.22.6.5

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| --- | --- | --- | --- | --- | --- |
| CID | Page | Clause | Comment | Proposed Change | Resolution |
| 39 | 53 | 11.22.6.4.3.1 | What is the behavior for "group related scheduling indications.? | As per comment | Revised.  Modified the text to clarify what group related scheduling indications are. |
| 167 | 53 | 11.22.6.4.3.1 | it is not clear what "group related scheduling indications" means. | Remove "and group related scheduling indications" from the sentence. | Revised. Duplicate of CID 39. Modified the text to clarify what group related scheduling indications are. |

11.22.6.4.2 RSTA Centric EDCA basic legacy scheduling Measurement exchange

##### 11.22.6.4.3 Measurement Exchange in HEz Mode

11.22.6.4.3.1 General

***802.11az Editor:***

***Modify the following sentence in L28P53 as shown below:***

Within each availability window the RSTA and ISTAs shall perform ranging activities related only to polling, measurement sounding and measurement results reporting, as well as signalling of modification of availability window parameters (see section 11.22.6.5.2).

**9.6.7.33 Fine Timing Measurement frame format**

***802.11az Editor:***

***Modify the following paragraph of Clause 9.6.7.33 as shown below:***

The Ranging Parameters field is present in the initial Fine Timing Measurement Frame if the responder selects non-TB ranging or TB Ranging protocols for the ranging phase, and is not present in subsequent Fine Timing Measurement frames except for the conditions described in sections 11.22.6.5 and 11.22.6.6. If present, it contains a Ranging Parameters element as defined in 9.4.2.246 (Ranging Parameters).

***Modify the following paragraph of Clause 9.6.7.33 as shown below:***

The FTM Synchronization Information field is present in the initial Fine Timing Measurement frame and its retransmissions if any, and in the first Fine Timing Measurement frame within each burst and its retransmissions if any if the responder selects Fine Timing Measurement (11.22.6.4.2 RSTA Centric EDCA basic legacy scheduling Measurement) for the ranging phase, and in an A-MPDU aggregated with an LMR frame if the responder selects TB Ranging for the ranging phase; otherwise it is not present. If present and

* the selected ranging phase is Fine Timing Measurement (11.22.6.4.2 RSTA Centric EDCA basic legacy scheduling Measurement), the FTM Synchronization Information field contains an FTM Synchronization Information element with a TSF Sync Info field containing the 4 least significant octets of the TSF at the responding STA corresponding to the time the responding STA received the last Fine Timing Measurement Request frame with the Trigger field equal to 1.
* the selected ranging phase is TB ranging as the ranging phase, the FTM Synchronization Information field content is TBD.

11.22.6.5 Fine Timing Measurement parameter modification

***802.11az Editor: Revise this section as follows:***

During an FTM session, an initiating STA may terminate the current session and request a new session with modified session parameters by transmitting a Fine Timing Measurement Request frame with Trigger field set to 1 and including a

* Fine Timing Measurement Parameters element if the corresponding FTM session is based on a Fine Timing Measurenent ranging phase (11.22.6.4.2 RSTA Centric EDCA basic legacy scheduling Measurement exchange), or
* Ranging Parameters element if the corresponding FTM session is based on nTB ranging (11.22.6.4.4 Measurement Exchange in Non-TB Mode) or TB ranging (11.22.6.4.3 Measurement Exchange in TB Mode).

The existing FTM session is terminated upon reception of such a Fine Timing Measurement Request frame. This Fine Timing Measurement Request frame is an initial Fine Timing Measurement Request frame for the new FTM session, which follows the behavior described in 11.24.6.3.

***Insert a new subclause to 11.22.6.5 as shown below:***

11.22.6.5.1 Availability Window parameter modification

In a FTM session based on TB Ranging the RSTA may modify the Availability Window parameters corresponding to the FTM session by transmitting an A-MPDU containing a Fine Timing Measurement frame and an RSTA-to-ISTA LMR whenever the RSTA is permitted to transmit such an LMR to that ISTA. The FTM frame is of type Action no ACK and shall contain a Ranging Parameters field containing an TB-Specific subelement. The Availability Window field in the TB-Specific subelement indicates the parameters of the new availability window assigned to the corresponding FTM session. In the FTM frame the Follow Up Dialog Token field is set as 0. The existing ranging session continues based on current Availability Window paramteters until the start of the new availability window signalled in the FTM frame.

**11.24.6.6 Fine timing measurement termination**

***Insert a new subclause to 11.24.6.6 as shown below:***

**11.24.6.6.2 TB Ranging and non-TB Ranging session termination**

A TB Ranging or a NTB Ranging session may be terminated through one of the following:

— At any time during the session when the responding STA is permitted to transmit an RSTA-to-ISTA LMR frame, the responding STA sends an A-MPDU containing an LMR frame and a Fine Timing Measurement frame with the Dialog Token field set to 0 and of type Action no ACK. In the FTM frame the Follow Up Dialog Token field is set as 0. The FTM frame shall not include any Ranging Parameters field.

— At any time during the session the initiating STA sends a Fine Timing Measurement Request frame with the Trigger field set to 0. This frame shall not include:  
 — a Ranging Parameters field.

— a Measurement Request element.

— At any time during the session the initiating STA terminates the current session and requests a new session with modified ranging parameters (see 11.24.6.5).