IEEE P802.11  
Wireless LANs

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| CR for Misc CIDs part 2 | | | | |
| Date: 2021-06-29 | | | | |
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Abstract

This document proposes CR for following CIDs:5196, 5195, 5229, 5174, 5039, 5040, 5209, 5210, 5211.

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| **CID** | **Page** | **Line** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 5174 | 74 | 1 | 9.4.2.298 | Not clear how is the dependance on 'requested by RSTA"? "-to 0 to indicate that it does not transmit I2R LMR at the end of each measurement exchange, if requested by the RSTA, or - to 1 to indicate that transmits I2R LMR at the end of each measurement exchange, if requested by the RSTA." | Change to "-to 0 to indicate that it will not transmit an I2R LMR at the end of each measurement exchange, or - to 1 to indicate that it will transmit an I2R LMR at the end of each measurement exchange, if requested by the RSTA." | **Revised.**  Agreed in principle. Restructured the sentence in order to clarify.  **TGaz editor:** make the changes identified below in https://mentor.ieee.org/802.11/dcn/21/11-21-1027-02-00az-CR-misc-cids-part2.docx. |
| 5195 | 48 | 9 | 9.3.1.22.10 | "The More TF subfield of the Common Info field of the Ranging Trigger frame is set to 1 and the RA field is set to the broadcast address to indicate that a subsequent Ranging Trigger frame of Poll subvariant is scheduled for transmission within the availability window as defined in Subclause 11.21.6.1.1 (EDCA based Ranging and TB Ranging overview). The More TF subfield of the Common Info field of the Ranging Trigger frame is set to 0 and the RA field is set to the broadcast address to indicate that no subsequent Ranging Trigger frame of Poll subvariant is scheduled for transmission within the availability window." - unclear what the effect on RA is, both cases state broadcast. | Either clarify if the setting of the RA field is affected by the More TF subfield and how, or remove reference to it. | **Revised.**  Agree with the commenter. We revise the text so that the usage of this field is described in clause 11.  **TGaz editor:** make the changes identified below in https://mentor.ieee.org/802.11/dcn/21/11-21-1027-02-00az-CR-misc-cids-part2.docx. |
| 5196 | 146 | 16 | 11.21.6.4.3.2 | "If there are no additional polling/sounding/reporting triplets in the same availability window, the RSTA shall set the More TF subfield in the Common Info field to 0 and the RA field to the broadcast address in the TF Ranging Poll frame, and in TFs in subsequent Measurement Sounding and Measurement Reporting phases (#1978) in the same availability window." - what is the effect on the RA field?  20 window." | Either clarify if the setting of the RA field is affected by the More TF subfield and how, or remove reference to it. | **Revised.**  Agree with the commenter. When the More TF field is set to 1, the RA field needs to be broadcast to let other STAs know there is going to be another measurement exchange opportunity in this Availability Window. However, when its set to 0, we don’t need to mandate this. Deleted the corresponding text in the spec.  **TGaz editor:** make the changes identified below in https://mentor.ieee.org/802.11/dcn/21/11-21-1027-02-00az-CR-misc-cids-part2.docx. |
| 5229 | 188 | 7 | 11.21.6.6.2 | What happens to an FTM session after a STA becomes associated or disassociated ? | Add a rule clarifying that an FTM session is terminated during an ongoing association or disassociation prcoedure. | **Reject**  Commeter withdrew the comment. |
| 5039 | 128 |  | 11.21.6.3.3 | Modify text 'If the ISTA set the I2R AOA Requested subfield to 1in the IFTMR frame, the RSTA may set the I2R AOA Requested subfield in the corresponding initial Fine Timing Measurement frame to 1. Otherwise, the RSTA shall set the I2R AOA Requested subfield in the corresponding initial Fine Timing Measurement frame to 0' to | If the ISTA sets the I2R AOA Requested subfield to 1 in the IFTMR frame, the RSTA may set the I2R AOA Requested subfield in the corresponding initial Fine Timing Measurement frame to 1 to confirm that RSTA will deliver I2R AOA measurement result in the R2I LMR, and 0 otherwise. | **Revised.**  Agree in principle. Revised the text to capture this.  **TGaz editor:** make the changes identified below in https://mentor.ieee.org/802.11/dcn/21/11-21-1027-02-00az-CR-misc-cids-part2.docx. |
| 5040 | 128 |  | 11.21.6.3.3 | Add a new paragraph to include normative text for R2I AOA Requested subfield | If the ISTA sets the R2I AOA Requested subfield to 1 in the IFTMR frame, the RSTA may set the R2I AOA Requested subfield in the corresponding initial Fine Timing Measurement frame to 1 to confirm that ISTA will deliver R2I AOA measurement result in the optionally transmitted I2R LMR, and 0 otherwise. | **Revised.**  Agree in principle. However, a similar text already exists that we revised to clarify the intent.  **TGaz editor:** make the changes identified below in https://mentor.ieee.org/802.11/dcn/21/11-21-1027-02-00az-CR-misc-cids-part2.docx. |
| 5209 | 187 | 14 | 11.21.6.5 | Not clear what is new/mofified in this clause, please diff with REVmd | Update underline and/or editor instructions | **Revised.**  Revised the text to clarify the changes relative to REVme.  **TGaz editor:** make the changes identified below in https://mentor.ieee.org/802.11/dcn/21/11-21-1027-02-00az-CR-misc-cids-part2.docx. |
| 5210 | 187 | 27 | 11.21.6.5.1 | This is a new clause? | Update underline and/or editor instructions | **Reject.**  This is indeed a new subclause and hence no underlines were provided. |
| 5211 | 188 | 3 | 11.21.6.6.1 | This is new text, does it go at the end of this clause? | Update underline and/or editor instructions | **Revised.**  Revised the text to clarify the changes relative to REVme.  **TGaz editor:** make the changes identified below in https://mentor.ieee.org/802.11/dcn/21/11-21-1027-02-00az-CR-misc-cids-part2.docx. |
| 5271 | 74 |  | 9.4.2.298 | "LMR to phase shift" and "LMR to be phase shift type of ToA" are they the same or different? If they are the same why are they described using different words? If not, how are they different?  The R2I TOA Type subfield is set to 1 in the IFTMR frame to set the TOA feedback type in the R2I LMR to phase shift which corresponds to the average linear phase across the subcarriers. Otherwise, the R2I TOA Type subfield is set to 0 and the R2I LMR TOA feedback type will be first path reporting. The R2I TOA Type subfield is set to 1 in the initial Fine Timing Measurement frame to indicate that the RSTA estimates TOA using phase shift; and set to 0 to indicate that the RSTA estimates TOA using first path reporting. (#1648)  The I2R TOA Type subfield in the IFTMR frame is set to 1 to indicate that the ISTA supports phase shift type TOA feedback and is set to 0 to indicate support of only first path reporting in the I2R LMR. The I2R TOA type subfield in the initial Fine Timing Measurement frame is set to 1 to indicate that the TOA feedback type in the I2R LMR to be phase shift type of TOA, corresponding to the average linear phase across the subcarriers and is set to 0 to indicate that the feedback type in the I2R will be of the first path reporting." | Use consistent terminology to avoid confusion. If Phase Shift type estimation is common to R2I ToA and I2R ToA, defining it once would help avoid scenarios where one definition is modified while other is not rendering it inconsistent can be avoided. | **Revised.**  Agreed in principle. Since the detailed description of the term is provided elsewhere, we revised the sentences in the comment to match the terminology used elsewhere.  **TGaz editor:** make the changes identified below in https://mentor.ieee.org/802.11/dcn/21/11-21-1027-02-00az-CR-misc-cids-part2.docx. |

***TGaz editor: Modify the following text in P74L10 of 11az draft 3.1 as follows:***

The ISTA sets the I2R LMR Feedback subfield in the Ranging  
Parameters element in the IFTMR frame to indicate whether it transmits I2R LMR feedback to the RSTA  
if requested by the RSTA ; see 11.21.6.3.3 (Negotiation for TB and Non-TB Ranging measurement exchange)(#5174)

The RSTA sets the I2R LMR Feedback subfield in the Ranging Parameters element in the IFTM frame to 1 to indicate it requests the ISTA to transmit I2R LMR feedback to the RSTA and it sets the subfield to 0 otherwise; see 11.21.6.3.3 (Negotiation for TB and Non-TB Ranging measurement exchange), 11.21.6.4.3.4 (Reporting phase of TB Ranging Measurement), and 11.21.6.4.4.3 (Non-TB Ranging Measurement Reporting phase). (#**3437**) (#5174).

***TGaz editor: Modify the following text in P48L6 of 11az draft 3.1 as follows:***

The More TF subfield of the Common Info field of the Ranging Trigger frame indicates whether a subsequent Ranging Trigger frame of Poll subvariant is scheduled for transmission within the availability window as defined in Subclause 11.21.6.4.3 (TB Ranging measurement exchange) (#**5164**) (#5195)

***TGaz editor: Modify the following text in P150L3 of 11az draft 3.1 as follows:***

If the RSTA had set the More TF subfield to 1 in the preceding Ranging Trigger frame and if there are no additional polling/sounding/reporting triplets in the same  
availability window, the RSTA shall set the More TF subfield in the Common Info field to 0 and  
the RA field to the broadcast address in the

the next Ranging Trigger frame within that availability window (#5196).

***TGaz editor: Delete the text under 11.21.6.6 in REVme draft 0.5, revise the following text in P194L6 of 11az draft 3.1 as follows:***

**11.21.6.6 Fine Timing Measurement session termination**

**11.21.6.6.1 EDCA based Ranging session termination ( 5211)**

An FTM session terminates after the last burst instance, as indicated in the Number of Bursts Exponent, Burst  
Duration, FTMs Per Burst and Burst Period fields in the initial Fine Timing Measurement frame.

An FTM session may be terminated before then through one of the following:  
— At any time during the FTM session when the responding STA is permitted to transmit a Fine  
Timing Measurement frame (see 11.21.6.4 (Measurement exchange)), the responding STA sends a  
Fine Timing Measurement frame with the Dialog Token field set to 0.  
— At any time during the FTM session when the initiating STA is permitted to transmit a Fine Timing  
Measurement Request frame (see 11.21.6.4 (Measurement exchange)), the initiating STA sends a  
Fine Timing Measurement Request frame with the Trigger field set to 0. This frame shall not include  
the following:

— A Measurement Request element

— A Fine Timing Measurement Parameters element  
— At any time during the FTM session when the initiating STA is permitted to transmit a Fine Timing  
Measurement Request frame (see 11.21.6.4 (Measurement exchange)), the initiating STA terminates  
the current session and requests a new session with modified Fine Timing Measurement parameters  
(see 11.21.6.5 (Fine timing measurement parameter modification)).  
— After the number of burst instances indicated in the Number of Bursts Exponent field in the initial  
Fine Timing Measurement frame has been reached.

When the FTM session is a Secure Fine Timing Measurement Session, the Fine Timing  
Measurement frames transmitted shall be the Protected Fine Timing Action frames; see 9.6.34  
 (Protected Fine Timing Frame details). (#**2523**, #**2524**) (#**TC889r3**)

***TGaz editor: Revise the following text in P131L2 of 11az draft 3.1 as follows:***

If the ISTA set the I2R AOA Requested subfield to 1 in the IFTMR frame, the RSTA may set the  
I2R AOA Requested subfield in the corresponding initial Fine Timing Measurement frame to 1 to request that ISTA will deliver I2R AOA measurement result in the optionally transmitted I2R LMR,and to 0 otherwise. (5039)

***TGaz editor: Revise the following text in P131L7 of 11az draft 3.1 as follows:***

If the ISTA sets the R2I AOA  
Requested subfield to 1 in the IFTMR frame, the RSTA may set the R2I AOA Requested subfield in the corresponding Initial Fine  
Timing Measurement frame to 1 to confirm that the RSTA will deliver R2I AOA measurement results in the R2I LMR and to 0 otherwise (#5040) (#**5191**)

**11.21.6.5 Fine timing measurement parameter modification (#5209)**

***TGaz editor: Revise the text under 11.21.6.5 in 11az draft 3.1 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.

This Fine Timing Measurement Request shall include:

* a new Fine Timing Measurement Parameters element if the corresponding FTM session is

using an EDCA based measurement exchange– see 11.21.6.4.2 (EDCA based ranging

measurement exchange), or.

* a Ranging Parameters element if the corresponding FTM session is a Non-TB Ranging;

see 11.21.6.4.4 (Non-TB Ranging measurement exchange), or TB Ranging; see 11.21.6.4.3

(TB Ranging measurement exchange.) (#3811)

NOTE— This allows up to one ranging session between a given ISTA and RSTA at any time. (#**1566**)

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 11.21.6.3 (Fine timing measurement procedure negotiation).

***TGaz editor: Revise the text in P74L21 of 11az draft 3.1 as follows:***

The R2I TOA Type subfield is set to 1 in the IFTMR frame by the ISTA to indicate that it requests phase shift feedback mode for the R2I LMR and is set to 0 otherwise . The R2I TOA Type subfield is set to 1 in the initial Fine Timing Measurement frame by the RSTA to indicate that it will report the R2I LMR for the phase shift feedback mode and is set to 0 otherwise (see 11.21.6.3.3 Negotiation for TB and Non-TB Ranging measurement exchange) . (#**1648, 5271**)

The I2R TOA Type subfield is set to 1 in the IFTMR frame by the ISTA to indicate that it requests/supports phase shift feedback mode for the I2R LMR and is set to 0 otherwise . The I2R TOA type subfield is set to 1 in the initial Fine Timing Measurement frame by the ISTA to  
indicate that it assign/requests phase shift feedback mode for the I2R LMR and is set to 0 otherwise (see 11.21.6.3.3 Negotiation for TB and Non-TB Ranging measurement exchange) .(#5271)