IEEE P802.11  
Wireless LANs

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| LB275 CR for 9.4.2.19 and 9.4.2.20 | | | | |
| Date: 2023-10-08 | | | | |
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Abstract

This submission proposes CR for 7 CIDs:

19429 19430 19431 19432 19433 19434 19869

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Remove CIDs 19427 and 19428

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 TGbe Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGbe Editor: Editing instructions preceded by “TGbe Editor” are instructions to the TGbe editor to modify existing material in the TGbe draft. As a result of adopting the changes, the TGbe editor will execute the instructions rather than copy them to the TGbe Draft.***

| **CID** | **Commenter** | **Pg/Ln** | **Section** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- | --- |
| 19432 | Guogang Huang | 0.00 | 9.4.2.19.11 | The Transmit Stream/Category Measurement request/report should be allowed to apply to the TIDs for SCS streams associated QoS Characteristics element. Please update the text. | As in comment. | Revised  Agree in principle. Considering the Transmit Stream/Category Measurement request/report is mainly used to measure the average transmit delay of MSDUs, it should be at the MLD level. Accordingly, the text regarding the Transmit Stream/Category Measurement request/report is updated to accommodate the MLO scenario.  TGbe editor, please make the changes tagged by CID #19432 in 11-23/1805r1. |
| 19429 | Guogang Huang | 0.00 | 9.4.2.19.11 | For the Transmit Stream/Category Measurement request, the Peer STA Address subfield of the Measurement Request field should contain the MLD MAC Address in the MLO scenario, rather than the RA. Please add the text to clarify. | As in comment. | Revised  Agree in principle. Considering the Transmit Stream/Category Measurement request/report is mainly used to measure the average transmit delay of MSDUs, it should be at the MLD level. Accordingly, the text regarding the Transmit Stream/Category Measurement request/report is updated to accommodate the MLO scenario.  TGbe editor, please make the changes tagged by CID #19432 in 11-23/1805r1. |
| 19430 | Guogang Huang | 0.00 | 9.4.2.19.20 | For the Transmit Stream/Category Measurement report, the Peer STA Address subfield of the Measurement Request field should contain the MLD MAC Address in the MLO scenario, rather than the RA. Please add the text to clarify. | As in comment. | Revised  Agree in principle. Considering the Transmit Stream/Category Measurement request/report is mainly used to measure the average transmit delay of MSDUs, it should be at the MLD level. Accordingly, the text regarding the Transmit Stream/Category Measurement request/report is updated to accommodate the MLO scenario.  TGbe editor, please make the changes tagged by CID #19432 in 11-23/1805r1. |
| 19431 | Guogang Huang | 0.00 | 9.4.2.19.20 | For the Actual Measurement Start Time field of the Transmit Stream/Category Measurement report, it's not clear which TSF time is refered to under the MLO scenario. Please clarify it. | As in comment. | Revised  Agree in principle. Considering the Transmit Stream/Category Measurement request/report is mainly used to measure the average transmit delay of MSDUs, it should be at the MLD level. Accordingly, the text regarding the Transmit Stream/Category Measurement request/report is updahted to accommodate the MLO scenario.  TGbe editor, please make the changes tagged by CID #19432 in 11-23/1805r1. |

9.4.2.20.11 Transmit Stream/Category Measurement Request

***TGbe editor: modify the first paragraph of subclause 9.4.2.19.11 of Draft REVme 4.0 as:***

The Transmit Stream/Category Measurement applies to TIDs for traffic streams associated with TSPECs, to TIDs for traffic categories for QoS traffic without TSPECs or with QoS Characteristics elements. The Measurement Request field corresponding to a Transmit Stream/Category Measurement request is shown in Figure 9-252 (Measurement Request field format for Transmit Stream/Category Measurement Request).

***TGbe editor: modify the following paragraph of subclause 9.4.2.19.11 of Draft REVme 4.0 as:***

If the peer STA is not affiliated with an MLD, the Peer STA Address field contains a MAC address indicating the RA for the measured frames; Otherwise, if the peer device is an MLD, it contains a MLD MAC Address indicating the DA for the measured frame.

9.4.2.20.11 Transmit Stream/Category Measurement Report

***TGbe editor: modify the first paragraph of subclause 9.4.2.20.11 of Draft REVme 4.0 as:***

The Transmit Stream/Category Measurement report applies to TIDs for Traffic Streams associated with TSPECs, to TIDs for Traffic Categories for QoS traffic without TSPECs or with QoS Characteristics elements. The format of the Measurement Report field corresponding to a Transmit Stream/Category Measurement report is shown in Figure 9-310 (Measurement Report field format for Transmit Stream/Category Measurement report).

***TGbe editor: modify the following paragraph of subclause 9.4.2.20.11 of Draft REVme 4.0 as:***

The Actual Measurement Start Time field is set to the TSF at the time at which the measurement started, or for a triggered Transmit Stream/Category Measurement report, the TSF value at the reporting QoS STA when the trigger condition was met. For MLO, it is in reference to the TSF time of the link, indicated by the MLO Link Information subelement.

***TGbe editor: modify the following paragraph of subclause 9.4.2.20.11 of Draft REVme 4.0 as:***

If the peer STA is not affiliated with an MLD, the Peer STA Address field contains a MAC address indicating the RA for the measured frames. Otherwise, if the peer device is an MLD, it contains a MLD MAC Address indicating the DA for the measured frame.

***TGbe editor: modify the following paragraph of subclause 9.4.2.20.11 of Draft REVme 4.0 as:***

The Transmitted MSDU Count field contains the number of MSDUs for the TC or the TS specified by the TID that were successfully transmitted. For the TC with a QoS Characteristics element, the Transmitted MSDU Count field contains the number of MSDUs, specified by the TID, that were successfully transmitted within the delay bound specified in the Delay Bound field in the relevant QoS Characteristics element.

***TGbe editor: modify Table 9-172 of Draft REVme 4.0 as:***

|  |  |  |
| --- | --- | --- |
| * Optional subelement IDs for Transmit Stream/Category Measurement report | | |
| Subelement ID | Name | Extensible |
| 0 | MLO Link Information | No |
| 1-220 | Reserved |  |
| 221 | Vendor Specific | Vendor defined |
| 222–255 | Reserved |  |

***TGbe editor: insert the following paragraph before the paragraph (“The Vendor Specific subelements…”)of subclause 9.4.2.20.11 of Draft REVme 4.0 as:***

The MLO Link Information subelement is defined in 9.4.2.317 (MLO Link Information element). For MLO, the MLO Link Information subelement is included within the Transmit Stream/Category Measurement report to indicate the link whose TSF is used as a reference.

**11.10.9.8 Transmit Stream/Category Measurement report**

***TGbe editor: modify the first paragraph in subclause 11.10.9.8 of Draft REVme 4.0 as:***

The Transmit Stream/Category Measurement applies to TIDs for Traffic Streams associated with TSPECs and also to TIDs for Traffic Categories for QoS traffic without TSPECs or with QoS Characteristics elements.

| **CID** | **Commenter** | **Pg/Ln** | **Section** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- | --- |
| 19433 | Guogang Huang | 0.00 | 9.4.2.19.20 | For the Reporting Reason field of the Transmit Stream/Category Measurement report, add a MSDU Delivery Ratio Trigger subfield by considering the MSDU Delivery Ratio is an important metric for the low-latency traffic. | As in comment. | Revised  Agree in principle. Define a new trigger condition, i.e. an MSDU Delivery Ratio, to monitor the QoS of the low-latency traffic.  TGbe editor, please make the changes tagged by CID #19433 in 11-23/1805r1. |
| 19434 | Guogang Huang | 0.00 | 9.4.2.19.11 | For the Triggered Reporting subelement, add a MSDU Delivery Ratio subfield within the Trigger Conditions subfield and a corresponding MSDU Delivery Ratio Threshold subfield within the Triggered Reporting field. Because the MSDU Delivery Ratio is an important metric for the low-latency traffic. | As in comment. | Revised  Agree in principle. Define a new trigger condition, i.e. an MSDU Delivery Ratio, to monitor the QoS of the low-latency traffic.  TGbe editor, please make the changes tagged by CID #19433 in 11-23/1805r1. |

***TGbe editor: modify the following figure in subclause 9.4.2.19.11 of Draft REVme 4.0 as:***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | B0 | B1 | B2 | B3 | B4 B7 |
|  | Average | Consecutive | Delay | MSDU Delivery Ratio | Reserved |
| Bits: | 1 | 1 | 1 | 1 | 4 |

**Figure 9-250 Trigger Condition subfield format**

***TGbe editor: Add the following bullet after the bullet (“The Delay subfield is set to…”) of subclause 9.4.2.19.11 of Draft REVme 4.0 as:***

* The MSDU Delivery Ratio subfield is set to 1 to request that a Transmit Stream/Category Measurement report be generated when the resulting MSDU delivery ratio for the TC, given by the TID, is lower than the value specified in the MSDU Delivery Ratio field in the relevant QoS Characteristics element. Otherwise, it is set to 0.

***TGbe editor: modify the following paragraph (“The Measurement Count field contains…”) of subclause 9.4.2.19.11 of Draft REVme 4.0 as:***

The Measurement Count field contains a number of MSDUs. This value is used to calculate an average discard count for the average trigger condition and the MSDU delivery ratio trigger condition. It is also used in place of measurement duration in determining the scope of the reported results when a report is triggered; see 11.10.9.8 (Transmit Stream/Category Measurement report).

***TGbe editor: modify the following figure in subclause 9.4.2.20.11 of Draft REVme 4.0 as:***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | B0 | B1 | B2 | B3 | B4 B7 |
|  | Average Trigger | Consecutive Trigger | Delay Trigger | MSDU Delivery Ratio Trigger | Reserved |
| Bits: | 1 | 1 | 1 | 1 | 5 |

**Figure 9-305 Reporting Reason field format**

***TGbe editor: Add the following bullet after the bullet (“The Delay Trigger subfield set to…”) of subclause 9.4.2.20.11 of Draft REVme 4.0 as:***

* The MSDU Delivery Ratio Trigger subfield is set to 1 to indicate that the Transmit Stream/Category Measurement report was generated as a triggered report, due to the MSDU delivery ratio for the TC, given by the TID, being lower than the value specified in the MSDU Delivery Ratio field in the relevant QoS Characteristics element. Otherwise, it is set to 0.