IEEE P802.11
Wireless LANs

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| Proposed Draft Text for group addressed frame |
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Abstract

This submission proposes draft text for TWT for MLD

Revisions:

* Rev 0: Initial version of the document.

**The texts are based on the following motion**

802.11be agrees that each AP in an AP MLD shall independently transmit all bufferable group addressed Management frames after every DTIM beacon in R1.

[Motion 131, #SP206, [21] and [240]]

The followings are supported in R1:

* If a non-AP MLD intends to receive group addressed data frame, the non-AP MLD shall follow the baseline rules to receive the group address data frames on any one link that the non-AP MLD selects to receive group addressed data frames.
* A group addressed data frame that is expected to be received by the non-AP MLD shall be scheduled for transmission in all the links setup with the non-AP MLD.

[Motion 144, #SP327, [26] and [241]]

In R1, an AP affiliated with an AP MLD shall indicate if each AP in the same AP MLD has buffered group addressed frames by using the existing TIM element.

* If the AP is not part of a multiple BSSID set or if the AP is part of a multiple BSSID set and is a transmitted BSSID, then the indication is in the DTIM beacon sent by the AP and is based on the latest information about the other APs that it has when the AP schedules the DTIM beacon.
* If the AP is a nontransmitted BSSID in a multiple BSSID set, then the indication is in the DTIM beacon corresponding to that nontransmitted BSSID sent by the transmitted BSSID of the same multiple BSSID set as the AP and is based on the latest information about the other APs that the transmitted BSSID has when it schedules the DTIM beacon.

[Motion 146, #SP353, [30] and [251]]

***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.***

***In 26.8.3.2 Rules for TWT scheduling AP***

A TWT scheduling AP that has advertised a broadcast TWT with a Broadcast TWT ID equal to 0 shall schedule the following:

— The delivery of group addressed DL BUs during the broadcast TWT SPs located within the beacon interval that follows the DTIM Beacon frame if the TWT parameter set indicated non-trigger enabled unannounced TWT SP and had the Broadcast TWT Recommendation subfield equal to 0.

***TGbe Editor: please add Clause 35.3.11.2 as follows:***

35.3.11 Multi-link group addressed frame delivery

35.3.11.2 Group addressed frame

Each AP in an AP MLD shall transmit all bufferable group addressed frames immediately after every DTIM beacon except that the TWT scheduling AP within that AP MLD shall transmit the bufferable group addressed frames during the broadcast TWT SPs located within the beacon interval that follows the DTIM Beacon frame as described in subclause 26.8.3.2 (Rules for TWT scheduling AP). Each AP in an AP MLD shall schedule the following:

* Transmit the bufferable group addressed Management frames independently.
* Transmit the same bufferable group addressed Data frames

If an AP affiliated with an AP MLD is not part of multiple BSSID set or is a transmitted BSSID in a multiple BSSID set, then the AP shall indicate if each AP in the same AP MLD has buffered group addressed frames by using one bit in the Partial Virtual Bitmap field of the TIM element

* The indication is in DTIM Beacon sent by the AP and is based on the latest information about the other APs that it has when the AP schedules the DTIM beacon

If an AP affiliated with an AP MLD is a non-transmitted BSSID in a multiple BSSID set, then the AP that corresponds to transmitted BSSID in the same multiple BSSID set shall indicate if each AP in the same AP MLD as the nontrasnmitted BSSID has buffered group addressed frames by using one bit in the Partial Virtual Bitmap field of the TIM element

* The indication is in DTIM Beacon corresponding to that non-transmitted BSSID sent by the transmitted BSSID of the same multiple BSSID set as the nontransmitted BSSID and is based on the latest information about the other APs that the transmitted BSSID has when it schedules the DTIM beacon