IEEE P802.11  
Wireless LANs

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| PDT MAC AP ID assignment | | | | |
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Abstract

This document contains Proposed Draft Text (PDT) for the Multi AP (M-AP) Coordiantion framework feature of the proposed TGbn (UHR, Ultra High Reliability) amendment to the 802.11 standard.

# Revision information

The following is a summary of the important changes that occurred within each revision of this document:

|  |  |
| --- | --- |
| **Revision** | **Major changes** |
| 0 | Initial revision |
| 1 | Update based on the feedback from Tomo, Jonghoe |
| 2 | Update based on the feedback from Insun, Mahmoud |
| 3 | Update based on the feedback from Giovanni, Abhi, Liwen,Arik |
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**TGbn editor: The baseline for this document is P802.11bnD0.1 and P802.11REVmeD7.0**

# Introduction

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 TGbn Draft. The abstract, revision information, introduction, explanation of the proposed changes and references sections are not part of the adopted material.

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

## Explanation of the proposed changes:

The proposed changes to the 802.11 TGbn draft within this document are based on the following motions adopted by the TGbn task group:

### Relevant passing motions:

* The sharing AP, that transmits a Trigger frame as part of a transmission sequence in a Multi-AP coordinated transmission scheme, identifies the shared AP via an AP ID carried in the AID12 field of the User Info field of the frame
  + Note: the name of "sharing AP" and "shared AP" are TBD
  + Note: Multi-AP coordinated transmission schemes are Co-SR, Co-BF and Co-TDMA

[Motion #135, [1] and [207, 208, 157, 117, 118, 122, 123, 108, 115, 124, 158]]

* As a part of M-AP coordination agreement procedure, an AP may assign an AP ID to another AP with the following constraints:
  + The AP ID is used for the AP to identify another AP as a coordinated AP, when necessary.
  + The AP ID field has the same size and the field value has a range as defined in AID field (see 9.4.1.8)
  + The AP shall ensure that the AP ID value is not assigned by the AP or by its affiliated MLD to any other STA (e.g., STA is an associated non-AP STA, an unassociated non-AP STA that has been allocated a (Ranging session Identifier) RSID , or any other coordinated AP), or a non-AP MLD that is associated with the AP MLD
  + It's TBD whether the AP ID value is greater than 2^n where n is the maximum of the value carried in the MBSSID Indicator (n) field of the Multiple BSSID element for any AP affiliated with the AP MLD that belongs to a multiple BSSID set

[Motion #265, [264] and [207, 208, 157, 117, 118, 122, 123, 108, 115, 124, 158, ]]

# Text to be adopted begins here:

***TGbn editor: Please make the following changes to the latest 802.11bn draft:***

**9.4.1.8 AID field**

***TGbn editor: Please update the second paragraph in 9.4.1.8 as follows:***

The AID field for a non-DMG and non-S1G STA associated to a non-EHT AP is in the range 1 to 2007. As part of MAPC operation (see 37.8 (Multi-AP Coordination framework)), an AP can assign an ID to another AP (referred to as an AP ID) by including the AID field in the frame exchanges during the MAPC negotiation phase, as defined in 37.8.1.3.2 (AP ID assignment). The AID field for an AP ID or a STA associated to an EHT AP or for a non-AP MLD associated to an AP MLD is in the

range 1 to 2006.The AP ID value shares the same pool as AID values that can be assigned to associated STAs. This value is placed in the 14 LSBs of the AID field, with the two MSBs of the AID field set to 1.







**37.8.1.3.2 AP ID assignment**

A UHR AP shall follow the rules defined in this subclause additionally to the rules defined in 37.8.1.3

(MAPC agreement negotiation) to assign an AP ID to another AP with which it establishes a MAPC

Agreement and with the following constraints:

* + The AP ID is used for the AP to identify another AP as a coordinated AP, when necessary.
  + The AP ID is as described in 9.4.1.8 (AID field).
  + The AP ID value is not assigned by the AP or by its affiliated MLD to any other STA (e.g., STA is an associated non-AP STA, an unassociated non-AP STA that has been allocated a (Ranging session Identifier) RSID, or any other coordinated AP), or a non-AP MLD that is associated with the AP MLD.
  + The AP ID value is not assigned by any other AP within the same Multiple BSSID set as the current AP to any other associated STA.
  + The AP ID value is not assigned by any other AP MLD that has any affiliated AP within the same Multiple BSSID set as the current AP to any other associated non-AP MLD.
  + The AP ID value shall be greater than 2^n where n the value carried in the MBSSID Indicator (n) field of the Multiple BSSID element if the AP belongs to a multiple BSSID set.

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Details of AP ID assignment are TBD.

# Text to be adopted ends here.

**References:**

1. [11-24-0171r21](https://mentor.ieee.org/802.11/dcn/24/11-24-0171-21-00bn-tgbn-motions-list-part-1.pptx): 11-24-0171-21-00bn-tgbn-motions-list-part-1, Alfred Asterjadhi (Qualcomm Inc.)