IEEE P802.11  
Wireless LANs

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| PDT MAC AP ID assignment | | | | |
| Date: 2025-02-14 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email | |
| Jay Yang | ZTE |  |  | Yang.zhijie@zte.com.cn | |
| Arik Klein | Huawei |  | +972548085336 | Arik.Klein@huawei.com | |
| Abhishek Chaturvedi | Samsung Electronics |  |  | [ac.vrns@GMAIL.COM](mailto:ac.vrns@GMAIL.COM) | |
| Abhishek Patil | Qualcomm |  |  | [appatil@qti.qualcomm.com](mailto:appatil@qti.qualcomm.com) | |
| Alfred Asterjadhi | Qualcomm |  |  | [asterjadhi@gmail.com](mailto:asterjadhi@gmail.com) | |
| Binita Gupta | Cisco Systems |  |  | [bingupta.ieee@GMAIL.COM](mailto:bingupta.ieee@GMAIL.COM) | |
| Brian Hart | Cisco Systems |  |  | [brianh@cisco.com](mailto:brianh@cisco.com) | |
| Dana Ciochina | Sony Corporation |  |  | [Dana.Ciochina@sony.com](mailto:Dana.Ciochina@sony.com) | |
| Dibakar Das | Intel |  |  | [dibakar.das@intel.com](mailto:dibakar.das@intel.com) | |
| Gaius Wee | Panasonic Corporation |  |  | [yaohuang.wee@SG.PANASONIC.COM](mailto:yaohuang.wee@SG.PANASONIC.COM) | |
| Gaurang Naik | Qualcomm |  |  | [gnaik@qti.qualcomm.com](mailto:gnaik@qti.qualcomm.com) | |
| Guarav Patwardhan | Hewlett Packard Enterprise |  |  | [gauravpatwardhan1@gmail.com](mailto:gauravpatwardhan1@gmail.com) | |
| GeonHwan Kim | LG ELECTRONICS |  |  | [geonhwan.kim@LGE.COM](mailto:geonhwan.kim@LGE.COM) | |
| Giovanni Chisci | Qualcomm |  |  | [gchisci@qti.qualcomm.com](mailto:gchisci@qti.qualcomm.com) | |
| Gwangho Lee | Korea National University of Transportation |  |  | [gwangho.lee@A.UT.AC.KR](mailto:gwangho.lee@A.UT.AC.KR) | |
| Haorui Yang | China Mobile |  |  | [yanghaorui0217@163.COM](mailto:yanghaorui0217@163.COM) | |
| Hirohiko INOHIZA | Canon |  |  | [inohiza.hirohiko@mail.canon](mailto:inohiza.hirohiko@mail.canon) | |
| Insun Jang | LG ELECTRONICS |  |  | [insun.jang@LGE.COM](mailto:insun.jang@LGE.COM) | |
| Jason Yuchen Guo | Huawei |  |  | [guoyuchen@huawei.com](mailto:guoyuchen@huawei.com) | |
| Jeongki Kim | Offino |  |  | [jeongki.kim.ieee@GMAIL.COM](mailto:jeongki.kim.ieee@GMAIL.COM) | |
| Jerome Gu | Clourney Semicondcutor |  |  | [jeg150@clourneysemi.com](mailto:jeg150@clourneysemi.com) | |
| Jiayi Zhang | Offino |  |  | [jzhang@ofinno.com](mailto:jzhang@ofinno.com) | |
| John Wullert | Peraton Labs |  |  | [jwullert@PERATONLABS.COM](mailto:jwullert@PERATONLABS.COM) | |
| Jonghoe Koo | Samsung Electronics |  |  | [jh89.koo@SAMSUNG.COM](mailto:jh89.koo@SAMSUNG.COM) | |
| Kaikai Huang | Nokia |  |  | [kaikai.huang@NOKIA-SBELL.COM](mailto:kaikai.huang@NOKIA-SBELL.COM) | |
| Kaiying Lu | Mediatek |  |  | [Kaiying.Lu@MEDIATEK.COM](mailto:Kaiying.Lu@MEDIATEK.COM) | |
| Kazuto Yano | ATR |  |  | [kzyano@IEEE.ORG](mailto:kzyano@IEEE.ORG) | |
| Ke Zhong | Ruijie Networks |  |  | [zhongke@RUIJIE.COM.CN](mailto:zhongke@RUIJIE.COM.CN) | |
| Kosuke Aio | Sony Corporation |  |  | [Kosuke.Aio@sony.com](mailto:Kosuke.Aio@sony.com) | |
| Kyosuke Inoue | SHARP CORPORATION |  |  | [kyosuke\_inoue@SHARP.CO.JP](mailto:kyosuke_inoue@SHARP.CO.JP) | |
| Lei Zhou | H3C Technologies |  |  | [zhou.leiH@H3C.COM](mailto:zhou.leiH@H3C.COM) | |
| Leif Wilhelmsson | Ericsson |  |  | [leif.r.wilhelmsson@ericsson.com](mailto:leif.r.wilhelmsson@ericsson.com) | |
| Leonardo Lanante | Ofinno |  |  | [llanante@OFINNO.COM](mailto:llanante@OFINNO.COM) | |
| Lili Hervieu | Cable Television Laboratories |  |  | [L.Hervieu@CABLELABS.COM](mailto:L.Hervieu@CABLELABS.COM) | |
| Liuming Lu | Guangdong Oppo |  |  | [luliuming@OPPO.COM](mailto:luliuming@OPPO.COM) | |
| Liwen Chu | NXP Semiconductors |  |  | [liwen.chu@nxp.com](mailto:liwen.chu@nxp.com) | |
| Lyutianyang Zhang | Huawei |  |  | [zhanglyutianyang@huawei.com](mailto:zhanglyutianyang@huawei.com) | |
| Massinissa Lalam | SAGEMCOM |  |  | [massinissa.lalam@SAGEMCOM.COM](mailto:massinissa.lalam@SAGEMCOM.COM) | |
| Jun Minotani | Panasonic |  |  | [minotani.jun@JP.PANASONIC.COM](mailto:minotani.jun@JP.PANASONIC.COM) | |
| Muhammad Kumail Haider | Meta |  |  | [kumail.ieee@GMAIL.COM](mailto:kumail.ieee@GMAIL.COM) | |
| Nima Namvar | Charter Communications |  |  | [nimanamvar1987@GMAIL.COM](mailto:nimanamvar1987@GMAIL.COM) | |
| Pascal Viger | Canon |  |  | [pascal.viger@crf.canon.fr](mailto:pascal.viger@crf.canon.fr) | |
| Patrice Nezou | Canon |  |  | [patrice.nezou@crf.canon.fr](mailto:patrice.nezou@crf.canon.fr) | |
| Pei Zhou | TCL |  |  | [Zhoupei36@gmail.com](mailto:Zhoupei36@gmail.com) | |
| Peshal Nayak | Samsung |  |  | [p.nayak@SAMSUNG.COM](mailto:p.nayak@SAMSUNG.COM) | |
| Rishabh Roy | Samsung Electronics |  |  | [201082002@IITDH.AC.IN](mailto:201082002@IITDH.AC.IN) | |
| Ross Jian Yu | Huawei |  |  | [ross.yujian@huawei.com](mailto:ross.yujian@huawei.com) | |
| Rubayet Shafin | Samsung |  |  | [r.shafin@SAMSUNG.COM](mailto:r.shafin@SAMSUNG.COM) | |
| Sanket Kalamkar | Qualcomm |  |  | [sankal@qti.qualcomm.com](mailto:sankal@qti.qualcomm.com) | |
| Shawn Kim | WILUS |  |  | [Shawn.kim@wilusgroup.com](mailto:Shawn.kim@wilusgroup.com) | |
| Shuang Fan | Sanechips Technology |  |  | [fan.shuang@SANECHIPS.COM.CN](mailto:fan.shuang@SANECHIPS.COM.CN) | |
| Shubhodeep Adhikari | Broadcom |  |  | [shubhodeep.adhikari@broadcom.com](mailto:shubhodeep.adhikari@broadcom.com) | |
| Sindhu Verma | Broadcom |  |  | [sindhu.verma@broadcom.com](mailto:sindhu.verma@broadcom.com) | |
| Sungjin Park | senscomm |  |  |  | |
| SunHee Baek | LG ELECTRONICS |  |  | [sunhee.baek@LGE.COM](mailto:sunhee.baek@LGE.COM) | |
| Taeyoung Ha | Samsung Electronics |  |  | [ty1115.ha@samsung.com](mailto:ty1115.ha@samsung.com) | |
| Tong Bian | Panasonic Corporation |  |  | [tong.bian@SG.PANASONIC.COM](mailto:tong.bian@SG.PANASONIC.COM) | |
| Vishnu Ratnam | Samsung |  |  | [vishnu.r@SAMSUNG.COM](mailto:vishnu.r@SAMSUNG.COM) | |
| Woojin Ahn | KNUT |  |  | [Woojin.ahn@ut.ac.kr](mailto:Woojin.ahn@ut.ac.kr) | |
| Xiandong Dong | Xiaomi |  |  |  | |
| Xiangxin Gu | Spreadtrum |  |  | [Xiangxin.Gu@UNISOC.COM](mailto:Xiangxin.Gu@UNISOC.COM) | |
| Xiaofei Wang | Interdigital |  |  | [Xiaofei.Wang@INTERDIGITAL.COM](mailto:Xiaofei.Wang@INTERDIGITAL.COM) | |
| Xuwen Zhao | TCL |  |  | [li.yan16@zte.com.cn](mailto:li.yan16@zte.com.cn) | |
| Yajun Cheng |  |  |  | [000038d07d12e9a7-dmarc-request@listserv.ieee.org](mailto:000038d07d12e9a7-dmarc-request@listserv.ieee.org) | |
| Yanjun Sun | Apple Inc |  |  | [yanjunsunstd@GMAIL.COM](mailto:yanjunsunstd@GMAIL.COM) | |
| Yaoshen Cui | TP-Link Systems |  |  | [cuiyaoshen@TP-LINK.COM.HK](mailto:cuiyaoshen@TP-LINK.COM.HK) | |
| Yelin Yoon | LG ELECTRONICS |  |  | [yl.yoon@LGE.COM](mailto:yl.yoon@LGE.COM) | |
| Yongho Seok | Apple Inc |  |  | [y\_seok@apple.com](mailto:y_seok@apple.com) | |
| Yongsen Ma | Samsung Electronics |  |  | [yongsen.ma@samsung.com](mailto:yongsen.ma@samsung.com) | |
| Yuki Fujimori | Canon |  |  | [Yuki.Fujimori@CRF.CANON.FR](mailto:Yuki.Fujimori@CRF.CANON.FR) | |
| Yunpeng Yang | TP-Link Systems |  |  | [yangyunpeng@TP-LINK.COM.HK](mailto:yangyunpeng@TP-LINK.COM.HK) | |
| Yusuke Tanaka | Sony Corporation |  |  | [yusuke.yt.tanaka@sony.com](mailto:yusuke.yt.tanaka@sony.com) | |
| Yuxin Lu | TCL |  |  | [eeluyx@GMAIL.COM](mailto:eeluyx@GMAIL.COM) | |
| Zhenpeng Shi | Huawei |  |  | [shizhenpeng1@huawei.com](mailto:shizhenpeng1@huawei.com) | |
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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 |
| 4-5 | Update the text to address editorial issues in several places. |
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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**

The AP ID is used for the AP to identify another AP as a coordinated AP, when necessary.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.

The AP ID is as described in 9.4.1.8 (AID field).

The AP ID value shall not be assigned by the AP or by its affiliated MLD to any other STA.

NOTE— 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 shall not be assigned by any other AP within the same multiple BSSID set to any other STA.

The AP ID value shall not be assigned by any other AP MLD that has any affiliated AP within the same multiple BSSID set to any other non-AP MLD.

The AP ID value shall be greater than 2n 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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# 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.)