IEEE P802.11  
Wireless LANs

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| PDT on Peer-to-Peer Communications (P2P) | | | | |
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Abstract

This document contains Proposed Draft Text (PDT) for the Peer-to-Peer (P2P) communication features of the proposed TGbn (UHR, Ultra High Reliability) amendment to the 802.11 standard.

This version of PDT includes the motions passed in IEEE up to December 19, 2024.

# Revision information

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

|  |  |
| --- | --- |
| **Revision** | **Major changes** |
| 0 | Initial version: motions passed until December 19, 2024 |
| 1 | Addressed some editorial comments from Abhi and Mark. |
| 2 | Added a co-author |
|  |  |

# 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 passed motions:

[Motion #184, [1]]

* 11bn enhances existing mechanism(s) to improve latency for a non-AP STA communication with another non-AP STA on the base channel and off-channel, respectively, by
  + enhancing mechanism(s) to allow an AP to share a TXOP with multiple peer-to-peer (P2P) non-AP STAs(s)
  + enhancing the baseline Channel Usage procedure to provide better recommendation on channel selection for P2P by enabling coordination between APs that do not belong to the same ESS so that the channels recommended for P2P operation sent by those APs are the same.

**Note 1:** the coordinated channel recommendation is an optional feature. Also, the responding AP has an option to reject the request for such coordination.

**Note 2:**

* Base channel is the channel where the AP associated with the non-AP STA is operating.
* A channel outside its associated AP’s operating BW is an off-channel for the non-AP STA.

# Text to be adopted begins here:

***TGbn editor: Please add the following to subclause 3.2 Definitions specific to IEEE Std 802.11:***

### 3.2 Definitions specific to IEEE Std 802.11

**coordinated channel recommendation:** [Co-CR] A procedure that enables an access point (AP) to coordinate with another AP that does not belong to the same ESS to advertise the same channel for peer-to-peer (P2P) communication.

***TGbn editor: Please add the following new subclause 37.15 Peer-to-peer (P2P) communications to the 802.11bn draft D0.1:***

37.15 **Peer-to-peer (P2P) communications**

**37.15.1 TXOP sharing for multiple P2P non-AP STAs**

This subclause describes a set of operations that enable an AP to share a TXOP with multiple P2P non-AP STAs.

**37.15.2 Coordinated channel recommendation (Co-CR)**

This subclause describes a mechanism for better recommendations on channel selection for P2P communication by enabling coordination among APs that do not belong to the same ESS so that the channels recommended for P2P operation sent by those APs are the same. The procedure is optional for an AP to support, and an AP that supports the procedure may reject a request from another AP to perform Co-CR.

# Text to be adopted ends here.

**References:**

1. [11-24/171r26](https://mentor.ieee.org/802.11/dcn/24/11-24-0171-26-00bn-tgbn-motions-list-part-1.pptx): 11-24-0171-21-00bn-tgbn-motions-list-part-1, Alfred Asterjadhi (Qualcomm Inc.)