IEEE P802.11
Wireless LANs

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| PDT MAC CR-TWT |
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Abstract

This document contains Proposed Draft Text (PDT) for the Coordinated Restricted Target Wake Up Time (CR-TWT) 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:

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| **Revision** | **Major changes** |
| 0 | Initial revision |
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# 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:

[Motion #48, [1]]

* Define mechanisms that enable APs to coordinate their rTWT schedule(s) and/or to ensure that one AP provides the protection of the rTWT schedule(s) of the other AP.
* NOTE – TBD mechanisms including negotiation between 2 APs and advertisement.

[Motion #149, [1]]

* If an AP extends the protection of the rTWT schedule of another AP, following negotiation or through other means, then:
	+ The AP shall ensure its TXOP ends before the start time of the corresponding OBSS rTWT SP(s)
	+ The AP, if it has at least one associated STA that is capable of rTWT, shall advertise in the beacon frames it transmits the OBSS rTWT schedule so that its associated STAs supporting rTWT follow the baseline rTWT rules for the OBSS rTWT schedule.

# Text to be adopted begins here:

***TGbn editor: Please add the following new subclause 37.x Coordinated Restricted TWT (CR-TWT) to the 802.11bn draft D0.1:***

37.x Coordinated Restricted TWT (CR-TWT)

37.x.1 General

CR-TWT operation described in this subclause enables APs in the same neighbourhood that belong to different BSSs to

1. coordinate their R-TWT schedule(s),
2. ensure that one AP extentds the protection for the R-TWT schedule(s) of the other AP.

A CR-TWT requesting AP is an AP that requests protection for one or more of its R-TWT schedule(s). A CR-TWT coordinated AP is an AP that provides protection for the requested R-TWT schedule(s) of a CR-TWT requesting AP either by establishing an agreement through negotiations or by other means. A CR-TWT responding AP is an AP that responds to a CR-TWT requesting AP that initiates a CR-TWT negotiation to establish an agreement by following the rules defined in 37.x.2 (CR-TWT negotiations).

If a CR-TWT coordinated AP extends the protection of an R-TWT schedule of a CR-TWT requesting AP, then:

1. it shall ensure that its TXOP ends before the start time of the CR-TWT requesting AP’s SP(s) corresponding to that R-TWT schedule, and
2. if it has at least one associated STA that is capable of R-TWT, it shall advertise in the Beacon frames it transmits that R-TWT schedule so that its associated STAs supporting R-TWT follow the R-TWT rules defined in 35.8.4.1 (TXOP and backoff procedure rules for R-TWT SPs) for that R-TWT schedule.

37.x.2 CR-TWT negotiations

# 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.)