

Project: IEEE P802.15 Working Group for Wireless Specialty Networks (WSN)

Submission Title: TG 15.4ab Interim Call Slides March-May

Date Submitted: 25 March 2024

Source: Benjamin A. Rolfe (Blind Creek Associates)

Contact:

Voice: +1 408 395 7207, **E-Mail:** ben.rolfe @ ieee.org

Re: **Task Group 4ab: 802.15.4 UWB Next Generation**

Abstract: Meeting Slides the Interim meeting, March 26 through May 7, 2024

Purpose: Continue project progress and continue the illusion of organization

Notice: This document has been prepared to assist the IEEE P802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

Release: The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15.

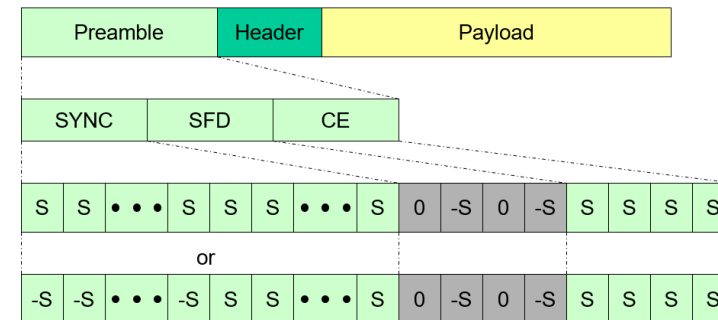


Task Group 15.4ab Next Generation UWB Amendment

Meeting Slides for the Interim meeting
March 26 through May 7, 2024

Meeting Preamble

- Stuff you need to know before we get to the meeting content



Task Group Rules

- Discussion: Everyone present is welcome
- Straw polls: Everyone present may vote
- Formal motions: WG voters
- To make, second and vote
- Patent policy for PAR activities applies
- All the usual rules of conduct

Please identify yourself on first contact with name and affiliation

IEEE-SA Patent, Copyright, and Participation Policies

See: <https://grouper.ieee.org/groups/802/sapolicies.shtml>

IEEE-SA Patent Slides for Standards Development Meetings (.pdf)

<https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf>

IEEE-SA Standards Board Patent Committee (PatCom) home page

<https://standards.ieee.org/content/ieee-standards/en/about/sasb/patcom/index.html>

IEEE-SA Participation Policy meeting slide set - individual method (.pdf)

<https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/Participant-Behavior-Individual-Method.pdf>

Working Group Copyright Materials

<https://standards.ieee.org/ipr/copyright-materials.html>

<https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/ieee-sa-copyright-policy-2019.pdf>

Participants have a duty to inform the IEEE

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

**Early identification of holders of potential
Essential Patent Claims is encouraged**

Ways to inform IEEE

- **Cause an LOA to be submitted to the IEEE SA (patcom@ieee.org); or**
- **Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or**
- **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

IEEE 802 Ground Rules

Respect ... give it, get it

NO product pitches

NO corporate pitches

NO prices

NO restrictive notices – (no confidentially notices in email)

Presentations must be openly available

Agenda



<https://mentor.ieee.org/802.15/dcn/24/15-24-0192-08-04ab-tg4ab-agenda-march-may-2024.xlsx>

5.2.b Scope of the project (As approved):

- This amendment enhances the Ultra Wideband (UWB) physical layers (PHYs) medium access control (MAC), and associated ranging techniques while retaining backward compatibility with enhanced ranging capable devices (ERDEVs).
Areas of enhancement include:
 - additional coding, preamble and modulation schemes to support improved link budget and/or reduced air-time relative to IEEE Std 802.15.4 UWB;
 - additional channels and operating frequencies;
 - interference mitigation techniques to support greater device density and higher traffic use cases relative to the IEEE Std 802.15.4 UWB;
 - improvements to accuracy, precision and reliability and interoperability for high-integrity ranging; schemes to reduce complexity and power consumption;
 - definitions for tightly coupled hybrid operation with narrowband signaling to assist UWB;
 - enhanced native discovery and connection setup mechanisms;
 - sensing capabilities to support presence detection and environment mapping;
 - and mechanisms supporting low-power low-latency streaming as well as high data-rate streaming allowing at least 50 Mb/s of throughput.
- Support for peer-to-peer, peer-to-multi-peer, and station-to-infrastructure protocols are in scope, as are infrastructure synchronization mechanisms. This amendment includes safeguards so that the high throughput data use cases do not cause significant disruption to low duty-cycle ranging use cases.

<https://development.standards.ieee.org/myproject-web/app#viewpar/9081>

Near Term Working Milestones

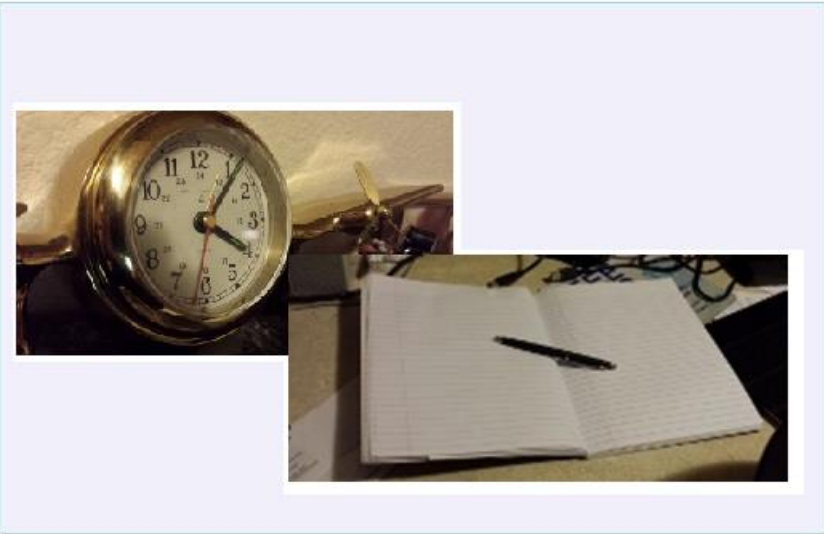
	Original Schedule	Current Schedule
Call for proposals	November 2021	
Cut-off for new features (high level feature set), PHY	May 2022	
Cut-off for new features (high level feature set), MAC	July 2022	
Draft 0	Post-January 2023	Post March July Sept 2023
TG draft review and revision complete	February - March 2023	Mar-June 2023 Sept 2023-Oct 2023
Working group pre-ballot review commence	March – May 2023 (following March meeting)	July August Sept Start: Nov 2023 Close: 2 Jan 2024
Comment Resolution		Start: Jan 2024 Done: May 2024 (??)
First letter ballot	June 2023 (following meeting)	Oct Nov 2023 Jan 2024 May 2024
Initial LB comment resolution		Start: July 2024 Done: TBD

DONE

We are here

Heading towards

Editor's Corner



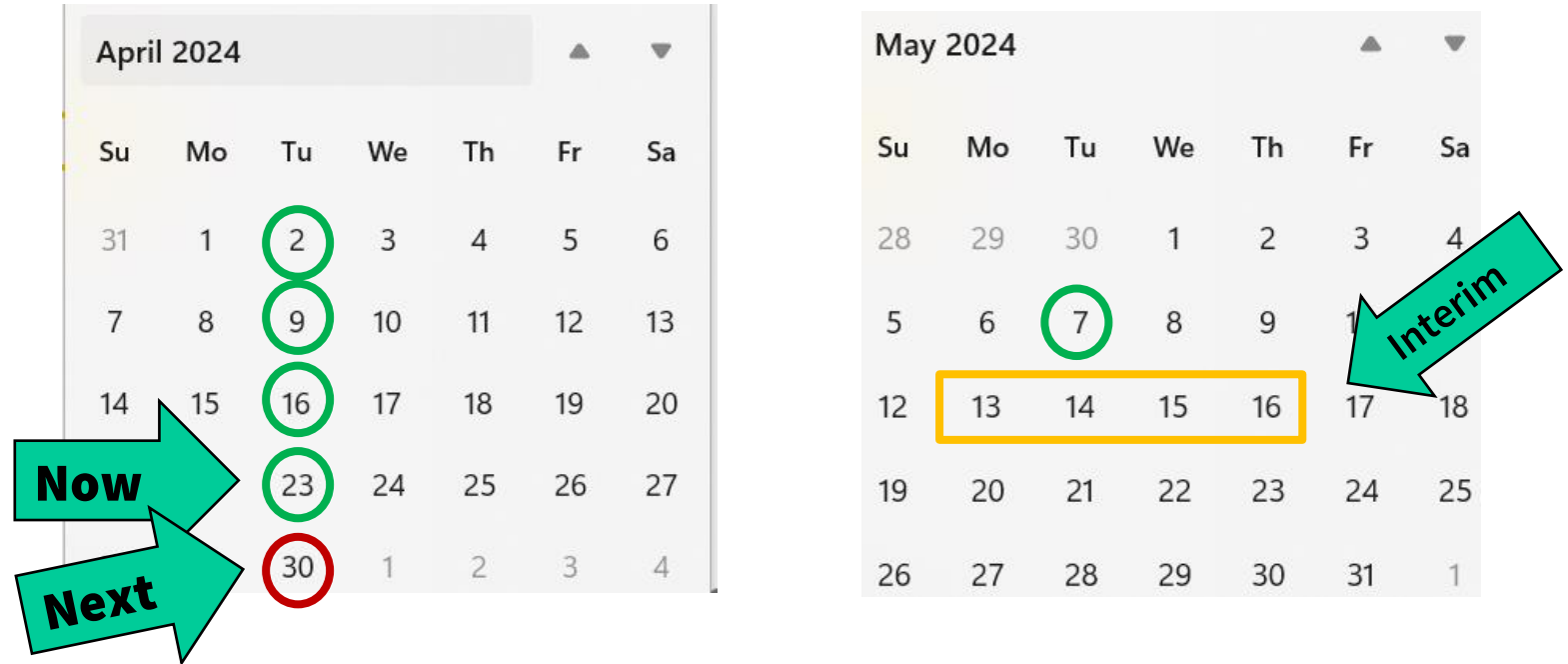
Comment resolution reports



Next Steps



Call schedule, March thru May



- Weekly on Tuesdays 2 hours split:
 1. 6am PT (1 hour)
 2. 4pm PT (1 hour)
- Commencing 26-March-2024
- April 30 (hour 1): Coexistence topics, Joint meeting with 802.11 CoEx SC

Recess