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

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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

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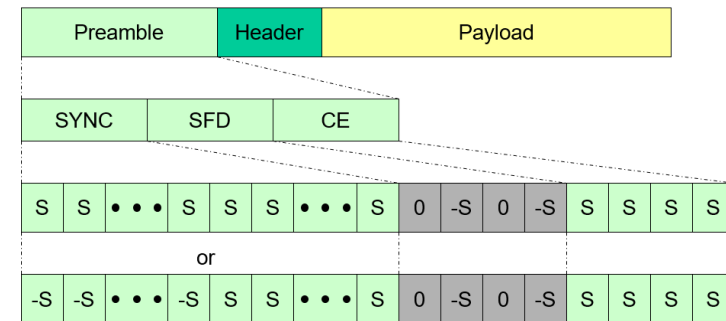
Task Group 15.4ab
Next Generation UWB Amendment

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 <u>shall</u> 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 <u>should</u> 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)

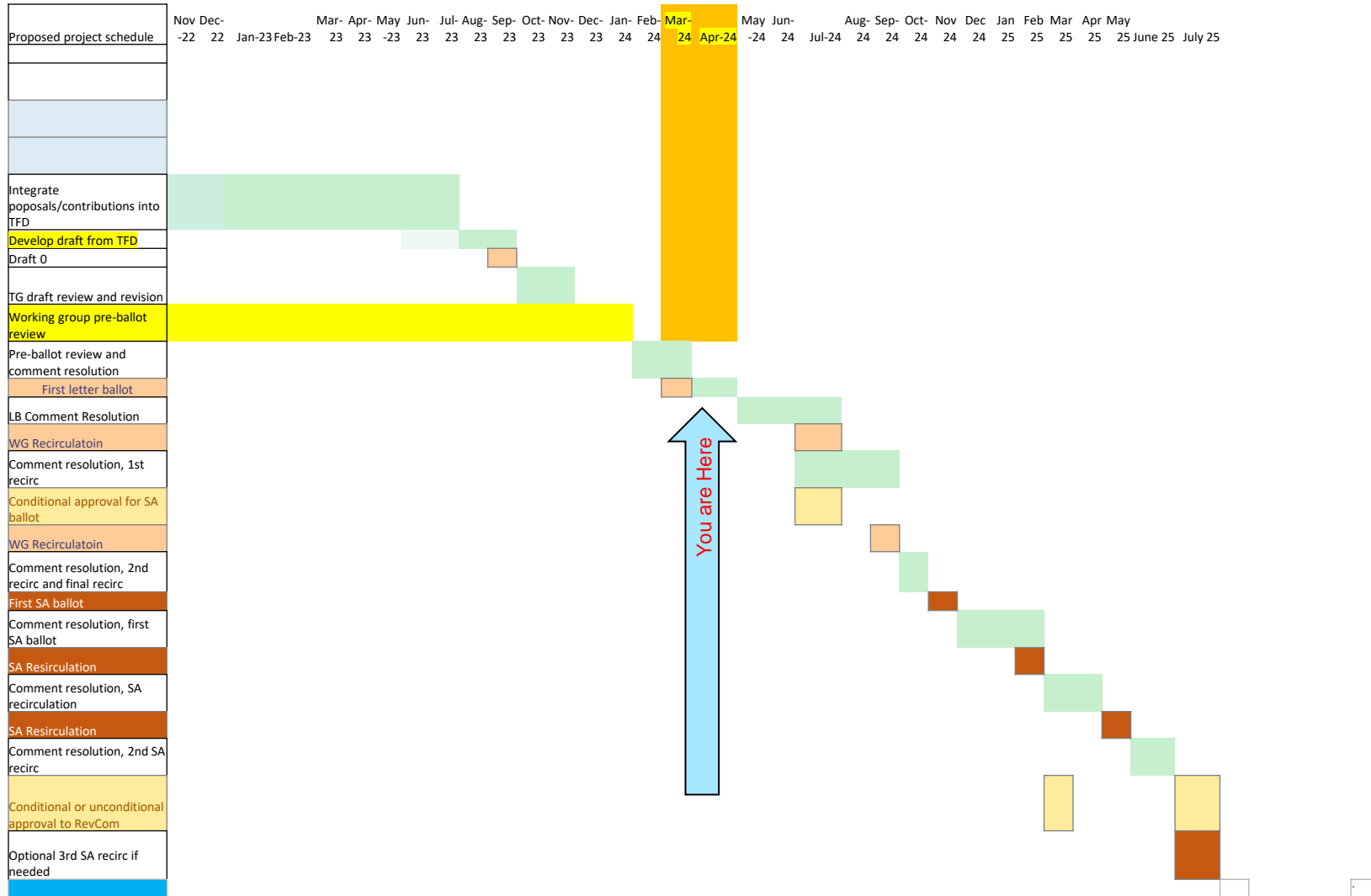Presentations must be openly available

Agenda

https://mentor.ieee.org/802.15/dcn/24/15-24-0192-06-04ab-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 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

Project Schedule (working baseline)

Proposed project schedule	Nov -22	Dec- 22	Jan-23	Feb-23	Mar- 23	Apr- 23	May -23	Jun- 23	Jul- 23	Aug- 23	Sep- 23	Oct- 23	Nov- 23	Dec- 23	Jan- 24	Feb- 24	Mar- 24	Apr-24	May -24	Jun- 24	Jul-24	Aug- 24	Sep- 24	Oct- 24	Nov 24	Dec 24	Jan 25	Feb 25	Mar 25	Apr 25	May 25	June 25	July 25
Integrate poposals/contributions into TFD																																	
Develop draft from TFD																																	
Draft 0																																	
TG draft review and revision																																	
Working group pre-ballot review																																	
Pre-ballot review and comment resolution																																	
First letter ballot																																	
LB Comment Resolution																																	
WG Recirculatoin																																	
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WG Recirculatoin																																	
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Comment resolution, first SA ballot																																	
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Comment resolution, SA recirculation																																	
SA Resirculation																																	
Comment resolution, 2nd SA recirc																																	
Conditional or unconditional approval to RevCom																																	
Optional 3rd SA recirc if needed																																	

You are Here

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
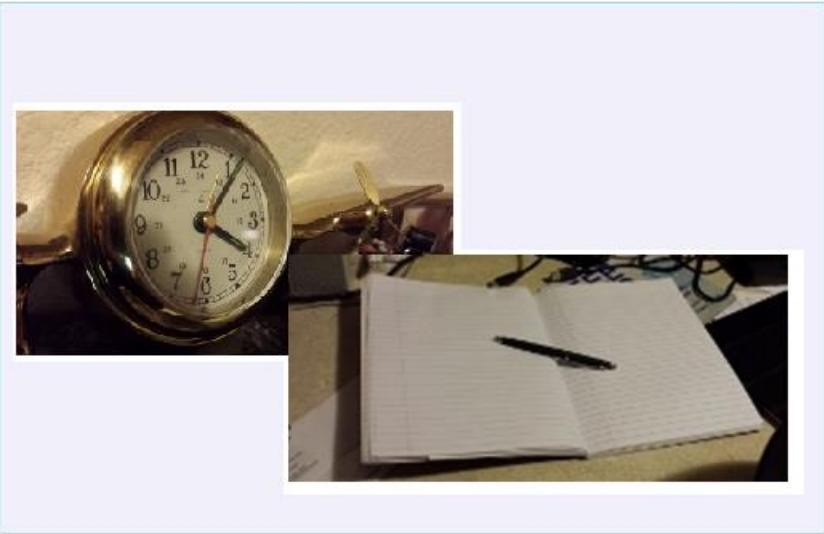
Comment resolution reports
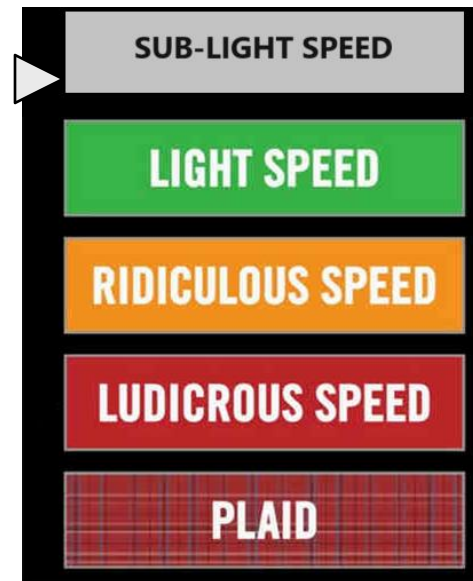
Progress Summary and Extrapolation

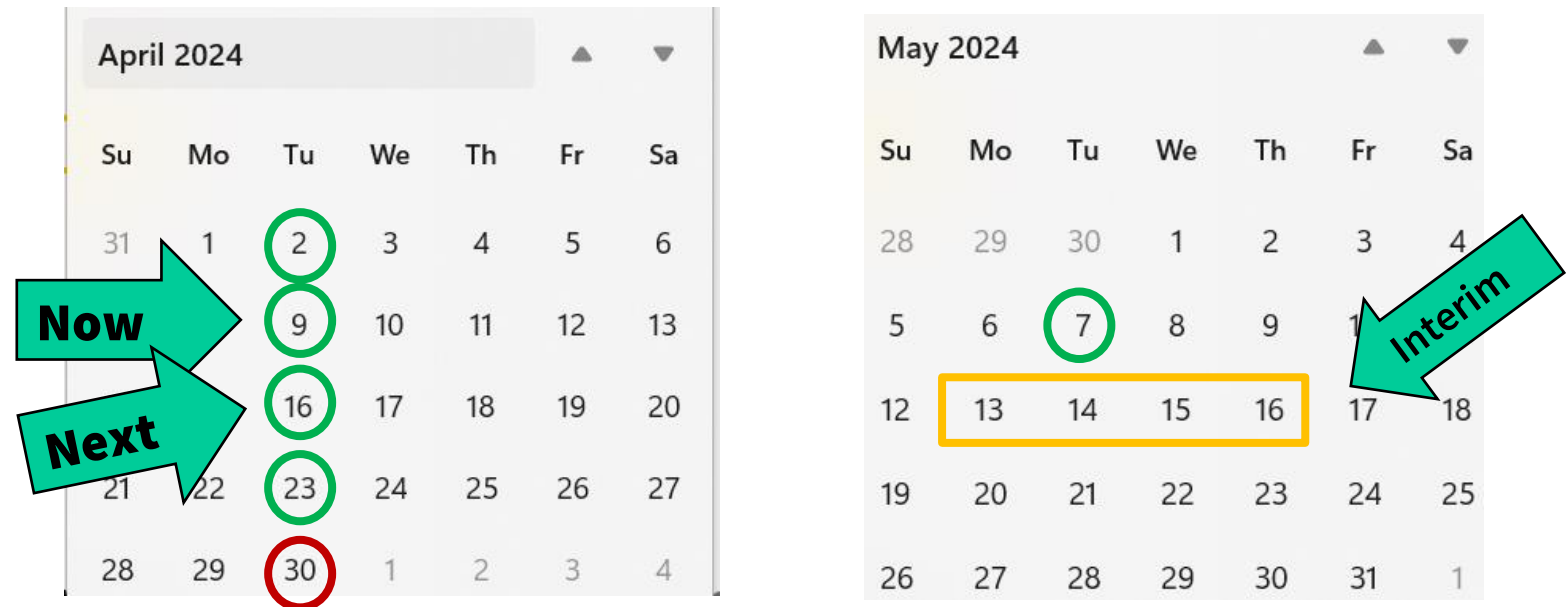| Total # Comments	# with Blank resolution	# with non-blank resolution
926	257	669

Timeline	
CC Close	2-Jan
Now	26-Mar
Elapsed days	84
Res/day	7.96
Remaining days	32.27
Extrapolated done	**27-Apr**

based on 15-24-0010-15 (r18 March 14th)

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