# Wireless Specialty Networks (WSN)

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<tr>
<th>Project</th>
<th>IEEE P802.15 Working Group for Wireless Specialty Networks (WSN)</th>
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<tr>
<td>Title</td>
<td>802.15.4 Revision PAR Working Draft</td>
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<tr>
<td>Date Submitted</td>
<td>[16 May 2022]</td>
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<tr>
<td>Source</td>
<td>[Phil Beecher]</td>
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<td>[Wi-SUN Alliance]</td>
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<tr>
<td>Re:</td>
<td>[May 802.15 Interim Meeting held virtually]</td>
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<tr>
<td>Abstract</td>
<td>[IEEE 802.15 Working Group SC Maintenance]</td>
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<td>Purpose</td>
<td>[Draft 802.15.4 Revision PAR]</td>
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<td>Notice</td>
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P802.15.4

Type of Project: Revision to IEEE Standard 802.15.4-2020
Project Request Type: Initiation / Revision
PAR Request Date:
PAR Approval Date:
PAR Expiration Date:
PAR Status: Draft
Root Project: 802.15.4-2020

1.1 Project Number: P802.15.4
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Project Title: Standard for Low-Rate Wireless Networks
Change to Title: IEEE Standard for Low-Rate Wireless Networks


3.1.1 Contact Information for Working Group Chair:
Name: Clinton Powell
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3.2 Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)

3.2.1 Contact Information for Standards Committee Chair:
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3.2.3 Contact Information for Standards Representative:
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE SA for Initial Standards Committee Ballot:
Jan 2024
4.3 Projected Completion Date for Submittal to RevCom: Sep 2024

5.1 Approximate number of people expected to be actively involved in the development of this project: 50

5.2 Scope of proposed standard: This standard defines the physical layer (PHY) and medium access control (MAC) sublayer specifications for low-data-rate wireless connectivity with fixed, portable, and moving devices with no battery or very limited battery consumption requirements. In addition, the standard provides modes that allow for precision ranging. PHYs are defined for devices operating in a variety of geographic regions.

5.3 Is the completion of this standard contingent upon the completion of another standard? No

5.4 Purpose: The standard provides for ultra low complexity, ultra low cost, ultra low power consumption, and low data rate wireless connectivity among inexpensive devices, especially targeting the communications requirements of what is now commonly referred to as the Internet of Things. In addition, some of the alternate PHYs provide precision ranging capability that is accurate to one meter. Multiple PHYs are defined to support a variety of frequency bands.

5.5 Need for the Project: This project is needed to incorporate accumulated maintenance changes and corrigenda (editorial and technical corrections) into the standard and to include approved amendments. The amendments include IEEE Std 802.15.4w, IEEE Std 802.15.4y, IEEE Std 802.15.4z, IEEE Std 802.15.4aa which are approved. One additional amendment is currently under development.

Change to Need for the Project: There are project a is needed errors, to inconsistencies, incorporate and accumulated ambiguities maintenance in changes need and of corrigenda correction. (editorial. Additionally and there will be technical corrections) completed amendments during into the course of and the to revision include that approved should...
amendments. The rolled-up amendments include these IEEE are Std 802.15.4n, 4w, 802.15.4q, IEEE Std 802.15.4s, 4v, IEEE Std 802.15.4t, 4z, IEEE Std 802.15.4u, 4aa which and are approved. One additional amendment is currently under development.

5.6 Stakeholders for the Standard: The stakeholders include manufacturers and users of telecom, medical, environmental, energy, and consumer electronics equipment and manufacturers and users of equipment involving the use of wireless sensor and control networks.

6.1 Intellectual Property
   6.1.1 Is the Standards Committee aware of any copyright permissions needed for this project? No
   6.1.2 Is the Standards Committee aware of possible registration activity related to this project? Yes
   Explanation: The RAC may want to review for correct and consistent usage of registry terms.

7.1 Are there other standards or projects with a similar scope? No
7.2 Is it the intent to develop this document jointly with another organization? No

8.1 Additional Explanatory Notes: 5.5 The amendment currently under development is:
   1. P802.15.4ab - Amendment: Enhanced Ultra Wide-Band (UWB) Physical Layers (PHYs) and Associated Medium Access and Control (MAC) sublayer Enhancements