**IEEE P802.15**

**Wireless Specialty Networks**

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| Project | IEEE P802.15 Working Group for Wireless Specialty Networks (WSNs) | |
| Title | **Proposed PAR for 15.4x** | |
| Date Submitted | January 16, 2018 | |
| Source | Kunal Shah (Itron)  Matt Gillmore (Itron) | E-Mail: [kshah @ itron.com Matthew.Gillmore @ itron.com] |
| Re: |  | |
| Abstract | [Proposed draft PAR for 15.4x] | |
| Purpose | [Draft PAR for 15.4x] | |
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**P802.15.4**

**Submitter Email:**

**Type of Project:** Amendment to IEEE Standard 802.15.4-2015

**PAR Request Date:** 15-Jan-2018

# PAR Approval Date: PAR Expiration Date:

**Status:** Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

* 1. **Project Number:** P802.15.4x
  2. **Type of Document:** Standard
  3. **Life Cycle:** Full Use

**2.1 Title:** Standard for Local and metropolitan area networks--Part 15.4: Low-Rate Wireless Personal Area Networks (LR-WPANs) – Amendment for Field Area Network Enhancements (FANE) supporting up to 2.4Mb/s data rates and channel models for new applications

* 1. **Working Group:** Wireless Personal Area Network (WPAN) Working Group (C/LM/WG802.15)

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* 1. **Sponsoring Society and Committee:** IEEE Computer Society/LAN/MAN Standards Committee (C/LM)

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* 1. **Type of Ballot:** Individual

# Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 09/2018

* 1. **Projected Completion Date for Submittal to RevCom: 12/2018**

**5.1 Approximate number of people expected to be actively involved in the development of this project: 100**

* + 1. **Scope of the complete 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. Physical layers (PHYs) are defined for devices operating various license-exempt bands in a variety of geographic regions.

* + 1. **Scope of the project:**

This amendment defines enhancements to the IEEE Std 802.15.4-Current revision Smart Utility Network (SUN) OFDM PHYs enabling the support for data rates up to 2.4Mb/s. Also, additional channel plans will be defined as needed to support emerging applications.

# Is the completion of this standard dependent upon the completion of another standard: No

* 1. **Purpose:** This document does not include a purpose clause.

# Need for the Project:

Building upon the numerous successful deployments of 802.15.4 technology and rapid growth in applications, such as Internet of Things (IoT), Smart Grid, and Smart Cities, PHY enhancements are needed to support higher data rates along with enhancements for longer range utilizing existing hardware deployments based upon 802.15.4 SUN PHY’s. These enhancements enable Electric System Distribution Automation, and reduce the amount of equipment needed to be deployed for Smart Grid systems, for example.

* 1. **Stakeholders for the Standard:** The stakeholders include silicon vendors, 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.

**Intellectual Property**

* + 1. **Is the Sponsor aware of any copyright permissions needed for this project?: No**
    2. **Is the Sponsor aware of possible registration activity related to this project?: No**
  1. **Are there other standards or projects with a similar scope?:** No
  2. **Joint Development**

**Is it the intent to develop this document jointly with another organization?:** No

**8.1 Additional Explanatory Notes (Item Number and Explanation):**