**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | **<PAR for IEEE 802.15.12>** | |
| Date Submitted | [12 November 2015 | |
| Source | [] [] [address] | Voice: [ ] Fax: [ ] E-mail: [ ] |
| Re: |  | |
| Abstract | [PAR application for ULI dedicated to 802.15.4 | |
| Purpose | [PAR for ULI] | |
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**P802.15.12**

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**Type of Project:** New IEEE Standard

**PAR Request Date:** 17-Sep-2015

**PAR Approval Date:**

# PAR Expiration Date:

**Status:** Unapproved PAR, PAR for a New IEEE Standard

* 1. **Project Number:** P802.15.12
  2. **Type of Document:** Standard
  3. **Life Cycle:** Full Use

**2.1 Title:** ULI for IEEE 802.15.4 Low-Rate Wireless Personal Area Networks (LR-WPANs)

* 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: 12/2017

* 1. **Projected Completion Date for Submittal to RevCom:** 08/2018
  2. **Approximate number of people expected to be actively involved in the development of this project:** 100
  3. **Scope:** Create a Upper Layer Interface (ULI) sublayer in the Data Link Layer (DLL), between Layer 3 (L3) and the IEEE 802.15.4 Media Access Control (MAC) sublayer that adapts L3 protocols and provides operational configuration of the IEEE 802.15.4 MAC, integrates both existing and soon to be released sub-layer functionalities for IEEE 802.15.4, provides protocol differentiation, provides configuration for regulatory requirements, and provides DLL protocol extensions from other organizations.

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

* 1. **Purpose:** This document will not include a purpose clause.
  2. **Need for the Project:** The IEEE 802.15.4 ULI is needed to:
     + Enable IEEE 802.15.4 devices to support multiple diverse higher layer protocols by using the EtherType mechanism, and also fragmentation to allow longer datagrams/packets
     + Integrate standard DLL protocols that interface to the IEEE 802.15.4 MAC providing services such as Key Management Protocol (KMP) and Layer 2 (L2) routing
     + Enhance IP connectivity by providing network layer IP abstraction
     + Fulfill IEEE 802.15.4 MAC and PHY configuration needs for operation such as:
       - network configuration
       - configuration for regulatory requirements
       - channel configuration
       - transmit power control configuration
       - modulation encoding configuration

5.6 **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):**

**5.2 Scope:**

**1)** Examples ofexisting and soon to be released sub-layer functionalities for IEEE 802.15.4 are IEEE 802.15.9 KMP, IEEE 802.15.10 L2 Routing Mesh, IETF 6tisch 6top

**2)** Examples of network configuration include selection of network to join, beacon-enabled (including superframe parameters) or nonbeacon-enabled, short address assignment

**3)** Examples of configuration for regulation requirements include PHY Configuration as per country of operation, Device class, Duty cycle constraints, Clear Channel Assessment (CCA) settings (time, threshold, mode)