

## P802.15.8

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**Submitter Email:** [bheile@ieee.org](mailto:bheile@ieee.org)  
**Type of Project:** New IEEE Standard  
**PAR Request Date:** 16-Feb-2012  
**PAR Approval Date:** 29-Mar-2012  
**PAR Expiration Date:** 31-Dec-2016  
**Status:** PAR for a New IEEE Standard

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**1.1 Project Number:** P802.15.8  
**1.2 Type of Document:** Standard  
**1.3 Life Cycle:** Full Use

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**2.1 Title:** Wireless Medium Access Control (MAC) and Physical Layer (PHY) Specifications for Peer Aware Communications (PAC)

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

**Contact Information for Working Group Chair**

**Name:** Robert Heile  
**Email Address:** [bheile@ieee.org](mailto:bheile@ieee.org)  
**Phone:** 781-929-4832

**Contact Information for Working Group Vice-Chair**

None

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

**Contact Information for Sponsor Chair**

**Name:** Paul Nikolich  
**Email Address:** [p.nikolich@ieee.org](mailto:p.nikolich@ieee.org)  
**Phone:** 857.205.0050

**Contact Information for Standards Representative**

None

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**4.1 Type of Ballot:** Individual

**4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot:** 01/2015

**4.3 Projected Completion Date for Submittal to RevCom:** 03/2016

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**5.1 Approximate number of people expected to be actively involved in the development of this project:** 150

**5.2 Scope:** This standard defines PHY and MAC mechanism for Wireless Personal Area Networks (WPAN) Peer Aware Communications (PAC) optimized for peer to peer and infrastructureless communications with fully distributed coordination. PAC features include: discovery for peer information without association, discovery signaling rate typically greater than 100 kbps, discovery of the number of devices in the network, scalable data transmission rates, typically up to 10 Mbps, group communications with simultaneous membership in multiple groups, typically up to 10, relative positioning, multihop relay, security, and operational in selected globally available unlicensed/licensed bands below 11 GHz capable of supporting these requirements.

**5.3 Is the completion of this standard dependent upon the completion of another standard:** No

**5.4 Purpose:** The purpose is to provide a global standard for scalable, low power, and highly reliable wireless communications for emerging services such as social networking, advertising, gaming, streaming, and emergency services. Existing standards may be able to provide parts of the envisioned PAC services, but no single standard provides infrastructureless peer-aware communications with fully distributed coordination.

**5.5 Need for the Project:** There is a need for a standard optimized for burgeoning social networking and peer-to-peer applications for mobile devices with the awareness of their relative positioning. While the current communication infrastructure can support the noted applications to some degree, PAC's goal is to allow the network to support hundreds of devices by reducing signaling overhead.

The fully distributed network without infrastructure is not only useful for crowded places such as mall, stadium, campus, amusement park etc. but also isolated places not supported by infrastructure. It is also useful for emergency situations such as flooding, earthquake, fire, etc.

**5.6 Stakeholders for the Standard:** The stakeholders include:

- Content providers
- Internet service providers
- Telecom industry
- Mobile device manufacturers

- Consumer electronics industry

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**Intellectual Property**

**6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?:** No

**6.1.b. Is the Sponsor aware of possible registration activity related to this project?:** No

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**7.1 Are there other standards or projects with a similar scope?:** No

**7.2 Joint Development**

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

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**8.1 Additional Explanatory Notes (Item Number and Explanation):** Note for Section 5.2 Scope: If needed, this standard also provides mechanisms that enable coexistence with other 802 systems in the same band.