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Once you approve and submit the following information, changes may only be made through the NesCom Administrator.

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| Draft PAR Confirmation Number: |
| Submittal Email: bheile@ieee.org |
| Type of Project: PAR for a New Standard |
| 1.1 Project Number: P802.15.6 |
| 1.2 Type of Document: Standard for |
| 1.3 Life Cycle: Full |
| 1.4 Is this project in ballot now? No |
| 1.5 Is the balloting group aware of the PAR modification? |
| 2.1 Title of Standard: Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements - Part 15.6: Wireless Medium Access Control (MAC) and Physical Layer (PHY) Specifications for Wireless Personal Area Networks (WPANs) used in or around a body. |
| 3.1 Name of Working Group: Wireless Personal Area Network (WPAN) Working Group |
| Contact information for Working Group Chair Robert F Heile Email: bheile@ieee.org Phone: 781-929-4832 |
| Contact Information for Working Group Vice Chair Email: Phone: |
| 3.2 Sponsoring Society and Committee: IEEE Computer Society/Local and Metropolitan Area Networks (C/LM) Contact information for Sponsor Chair: Paul Nikolich Email: p.nikolich@ieee.org Phone: 857-205-0050 Contact information for Standards Representative: Email: Phone: |
| 3.3 Joint Sponsor: / () Contact information for Sponsor Chair: Email: Phone: Contact information for Standards Representative: Email: Phone: |
| 4.1 Type of Ballot: Individual |
| 4.2 Expected Date of Submission for Initial Sponsor Ballot: 2009-11 |
| 4.3 Projected Completion Date for Submittal to RevCom: 2010-03 |
| 5.1 Approximate number of people expected to work on this project: 200 |
| 5.2 Scope of Proposed Standard: This project will define a standard for short range, wireless communication in the vicinity of, or inside, a human body (but not limited to humans). It will potentially use existing ISM bands as well as frequency bands approved by national medical and/or regulatory authorities. Support for QoS, extremely low power, and data rates up to 10 Mbps is required while simultaneously complying with strict non-interference guidelines where needed. This standard will consider effects on portable antennas due to the presence of a person (varying with male, female, skinny, heavy, etc.), radiation pattern shaping to minimize SAR* into the body, and changes in characteristics as a result of the user motions. *SAR (Specific Absorption Rate) measured in (W/kg) = (J/kg/s). SAR is regulated, with limits for local exposure (Head) of: in US: 1.6 W/kg in 1 gram and in EU: 2 W/kg in 10 gram. This limits the TX power in US < 1.6 mW and in EU < 20 mW. |

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

If yes, please explain:

5.4 Purpose of Proposed Standard: The purpose of the proposed standard is to provide an international standard for a short range (ie about human body range), low power and highly reliable wireless communication for use in close proximity to, or inside, a human body. Data rates, typically up to 10Mbps, will be offered to satisfy an evolutionary set of entertainment and healthcare services. Current PANs do not meet the medical (proximity to human tissue) and relevant communication regulations for some application environments. They also do not support the combination of reliability (QoS), low power, data rate and noninterference required to broadly address the breadth of body area network applications.

5.5 Need for the Project: There is a need for a standard optimized for ultra low power devices and operation on, in or around the human body to serve a variety of applications including medical and personal entertainment. Examples of the applications served by the proposed standard are: EEG, ECG, EMG, vital signals monitoring (temperature (wearable thermometer), respiratory, wearable heart rate monitor, wearable pulse oximeter, wearable blood pressure monitor, oxygen, pH value , wearable glucose sensor, implanted glucose sensor, cardiac arrhythmia), wireless capsule endoscope (gastrointestinal), wireless capsule for drug delivery, deep brain stimulator, cortical stimulator (visual neuro-stimulator, audio neuro stimulator, Parkinson's disease, etc...), remote control of medical devices such as pacemaker, actuators, insulin pump, hearing aid (wearable and implanted), retina implants, disability assistance, such as muscle tension sensing and stimulation, wearable weighing scale, fall detection, aiding sport training. This will include body-centric solutions for future wearable computers. In a similar vein, the same technology can provide effective solutions for personal entertainment as well.

The existence of a body area network standard will provide opportunities to expand these product features, better healthcare and well being for the users. It will therefore result in economic opportunity for technology component suppliers and equipment manufacturers.

5.6 Stakeholders for the Standard: The stakeholders include the general population who will be served by advanced medical and entertainment options enabled by this standard. Other parties having interests include medical equipment manufacturers and consumer electronics manufacturers.

Intellectual Property

6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitted this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes

If yes, state date: 2007-09-17

If no, please explain:

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

If yes, please explain:

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

If yes, please explain:

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

If yes, please explain:

and answer the following: Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

7.2 Future Adoptions

Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? Do not know at this time

If Yes, the following questions must be answered:

Technical Committee Name and Number:

Other Organization Contact Information:

Contact person:

Contact Email address:

7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety?

No

If yes, please explain:

7.4 Additional Explanatory Notes: (Item Number and Explanation)

It is in the best interest of users and the industry to strive for a level of coexistence with other wireless systems, especially those in similar market spaces. Coexistence requirements will be established by the Task Group in cooperation with the 802 TAG on coexistence (802.19) and included in the selection criteria against which the proposals will be evaluated.

8.1 Sponsor Information:

Is the scope of this project within the approved scope/definition of the Sponsor's Charter? Yes

If no, please explain:

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