

P802.15.10

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Type of Project: New IEEE Standard

PAR Request Date: 07-Jun-2013

PAR Approval Date:

PAR Expiration Date:

Status: Unapproved PAR, PAR for a New IEEE Standard

1.1 Project Number: P802.15.10

1.2 Type of Document: Recommended Practice

1.3 Life Cycle: Full Use

2.1 Title: Recommended practice for routing packets in dynamically changing wireless networks

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

Contact Information for Working Group Chair

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

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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: 11/2015

4.3 Projected Completion Date for Submittal to RevCom: 05/2016

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

5.2 Scope: This recommended practice extends wireless networks by defining a protocol that routes packets in a dynamically changing network (changes on the order of a minute time frame), with minimal impact to route handling.

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

5.4 Purpose: This recommended practice will facilitate the routing of packets in dynamically changing wireless networks. Specifically it will provide for automatic handling of route related capabilities such as:

- Route establishment
- Dynamic route reconfiguration
- Discovery and addition of new nodes
- Breaking of established routes
- Loss and recurrence of routes
- Real time gathering of link status
- Allowing for single hop appearance at the networking layer (not breaking standard L3 mechanisms)
- Support of broadcast
- Support of multicast
- Effective frame forwarding

5.5 Need for the Project: Wireless PANs are being increasingly used in a variety of applications, including in Field Area Networks and in Neighborhood Area Networks. In these networks there is increased mobility as well as an increase in the opportunity for loss of connection due to both mobility and blockers/interferers. The ability to handle dynamically changing networks would be satisfied by defining new route handling capabilities.

5.6 Stakeholders for the Standard: Chip vendors, Equipment Manufacturers, wireless sensor application developers and users.

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

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

8.1 Additional Explanatory Notes (Item Number and Explanation): (7.1) None that make use of the features provided by IEEE Std. 802.15.4e-2012.