

Example IEEE PAR as Guidance to SRPSDVE Study Group

DCN: 15-13-0523-07

P802.15.3d

Submitter Email: bheile@ieee.org **Type of Project:** Amendment to IEEE Standard 802.15.3-2003 **PAR Request Date:** 13-Feb-2014 **PAR Approval Date:** **PAR Expiration Date:** **Status:** Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

1.1 Project Number: P802.15.3d

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Information technology-- Local and metropolitan area networks-- Specific requirements-- Part 15.3: Wireless Medium Access Control (MAC) and Physical Layer (PHY) Specifications for High Rate Wireless Personal Area Networks (WPAN) Amendment for a 100Gbps wireless switched point-to-point physical layer

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 **Phone:** 781-929-4832

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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 **Phone:** 857.205.0050

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5.2.a. Scope of the complete standard: This project will define the PHY and MAC specifications for high data rate wireless connectivity with fixed, portable and moving devices. Data rates will be high enough to satisfy a set of consumer multimedia industry needs, and to support emerging wireless switched point-to-point applications.

Changes in scope: This project will define the PHY and MAC specifications for high data rate wireless connectivity with fixed, portable and moving devices **within or entering a Personal Operating Space (POS). A Data goal rates of the WPAN-HR (High Rate) Task Group will be high enough to achieve satisfy a level set of interoperability consumer or multimedia coexistence industry with needs, other and 802.15 Task Groups. It is also the intent of this project to work support toward emerging a level of coexistence with other wireless devices switched in point-to-point conjunction with Coexistence Task Groups such as 802.15.2 applications.**

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.b. Scope of the project: This amendment defines a wireless switched point-to-point physical layer to IEEE Std. 802.15.3 operating at a nominal PHY data rate of 100 Gbps with fallbacks to lower data rates as needed. Operation is considered in bands from 60 GHz up to and including optical wireless at ranges as short as a few centimeters and up to several 100m. Additionally, modifications to the Medium Access Control (MAC) layer, needed to support this

new physical layer, are defined.

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 standard for low complexity, low cost, low power consumption, and high data rate wireless connectivity among devices. Data rates will be high enough to satisfy a set of consumer multimedia industry needs, and to support emerging wireless switched point-to-point applications in data centers, wireless backhaul/fronthaul intra-device communication and kiosk downloading.

Changes in purpose(from 15.3): ToThe purpose is to provide a standard for low complexity, low cost, low power consumption, (comparable to the goals of 802.15.1) and high data rate wireless connectivity among devices within or entering the Personal Operating Space (POS). TheData datarates rate will be high enough, 20 Mbps or more, to satisfy a set of consumer multimedia industry needs, forand WPANto communications.support Theemerging projectwireless willswitched alsopoint-to-point addressapplications thein Qualitydata ofcenters, Servicewireless capabilitiesbackhaul/fronthaul requiredintra-device tocommunication supportand multimediakiosk data typesdownloading.

5.5 Need for the Project: In data centers wireless links will make frequent reconfiguration easier and more cost-effective. In the case of backhaul and fronthaul, wireless solutions will reduce costs for the case when installing a fiber network is not cost-effective. In the cases of close-proximity kiosk-downloading and intra-device communication, a minimum data rate achievable with high probability, is required, which should be possible because of the operation in a controlled environment. No wireless standard with all these properties, operating at a primary data rate of 100 Gbps, with fallbacks to lower data rates as required and suitable for operation in a switched point-to-point-configuration exists today.

5.6 Stakeholders for the Standard: Chip vendors, server vendors, radio frequency (RF) and optical component manufacturers, equipment manufacturers, enterprise infrastructure providers and wireless operators.

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): 5.2a: The scope of the standard has been updated to reflect the current status of the standard plus completed amendments and to remove language and references that might have been helpful 11 years ago, but are just irrelevant or confusing today. 5.2b: In this context the term switching is used to describe reconfiguration of a set of otherwise fixed wireless links. This means that the physical beams of a device at one end of the wireless links are switched between stationary devices at the other end of the links resulting in an different configuration. Fronthaul is the link between the PHY control unit of a base station and a remote radio unit. 5.5: In close proximity kiosk-downloading the link distance is at the order of a few centimeters.