

IEEE P802.11
Wireless LANs

**Project Authorization Request (PAR)
Higher Rate IEEE 802.11b Study Group (HRbSG)**

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IEEE-SA Standards Board Project Authorization Request (PAR) Form (2000-Rev 1)

- | | | |
|---|---|---|
| 1. <u>Sponsor Date</u>
of Request
[2000 July] | 2. <u>Assigned Project</u>
Number
[_____] | 3. <u>PAR Approval</u>
Date
_____ |
|---|---|---|

Copyright release must be submitted with appropriate signatures by FAX (1-732-562-1571)}

[...] PAR Signature Page on File {IEEE Staff to check box }

4. Project Title, Recorder and Working Group/Sponsor for this Project

Document type and title: {Place an X in only one option below}

- **Standard for** {document stressing the verb "shall" }
- **Recommended Practice for** {document stressing the verb "should" }
- **Guide for** {document in which good practices are suggested }

Title: [Supplement to STANDARD [FOR] Information Technology-
Telecommuniactions and information exchange between
systems-Local and Metropolitan networks-Specific
requirements-Part 11: Wireless LAN Medium Access Control
(MAC) and Physical Layer (PHY) specifications: Further
Higher data rate extension in the 2.4GHz band]

Name of Working Group (WG): [IEEE P802.11, Working Group for Wireless LANs]

Name of Official Reporter (usually the WG Chair) who must be an SA member as
well as an IEEE/Affiliate Member: Stuart Kerry

IEEE-Standards Staff has verified that the Official Reporter (or
Working Group Chair) is an IEEE and an IEEE-SA member: [...] (Staff to check box)

Contact Information:

Telephone +1-408-991-4854 FAX: [+1-408-991-5758]

E-mail: stuart.kerry@philips.com

Name of Working Group Chair (if different than Reporter): [...]

IEEE-Standards Staff has verified that the Working Group Chair is an IEEE and an IEEE-SA member: [...] (Staff to check box)

Contact Information:

Telephone [...]

FAX: [...]

E-mail: [...]

Name of Sponsoring Society and Committee:

Computer Society/LMSC

Name of Committee Sponsor Chair:

Jim Carlo

IEEE-Standards Staff has verified that the Sponsor is an IEEE and an IEEE-SA member:

[...] (Staff to check box)

Contact Information:

Telephone +1-214-693-1776

FAX: +1-214-853-5274

E-mail: jcarlo@ti.com

5. Type of Project

a. Is this an update to an existing PAR? No

b. Choose one from the following:

[...] New Standard

[...] Revision of existing Standard {number and year} [...]

Amendment (Supplement) to an existing standard {number and year}

[IEEE Std 802.11b-1999]

[...] Corrigenda to an existing standard {number and year} [...]

6. Life Cycle

Full Use (5-year life cycle)

[...] Trial Use (2-year life cycle)

7. Balloting Information

Choose one from the following:

Individual Sponsor Balloting

[...] Entity Sponsor Balloting

[...] Mixed Balloting (combination of Individual and Entity Sponsor Balloting)

Expected Date of Submission for Initial Sponsor Ballot: March 2001

8. Fill in Projected Completion Date for Submittal to RevCom: November 2001

9. Scope of Proposed Project:

[To develop a higher speed(s) PHY extension to 802.11b.
Refer to Section 16 for the complete scope.]

10. Purpose of Proposed Project:

[To develop a new PHY extension to enhance the performance and the possible applications of the 802.11b compatible networks by increasing the data rate achievable by such devices. This technology will be beneficial for improved access to fixed network LAN and inter-network infrastructure (including access to other wireless LANs) via a network of access points, as well as creation of higher performance ad hoc networks.]

11. Intellectual Property {Answer each of the questions below}

Are you aware of any [patents](#) relevant to this project?

[No] {Yes, with detailed explanation below / No}

[...] {Explanation}

Are you aware of any [copyrights](#) relevant to this project?

[No] {Yes, with detailed explanation below / No}

[...] {Explanation}

Are you aware of any [trademarks](#) relevant to this project?

[No] {Yes, with detailed explanation below / No}

[...] {Explanation}

Are you aware of any [registration](#) of objects or numbers relevant to this project?

[No] {Yes, with detailed explanation below / No}

[...] {Explanation}

12. Are you aware of any other standards or projects with a [similar scope](#)?

[Yes] { Yes, with detailed explanation below / No }

{Explanation}

IEEE 802.15.3

The 802.15 WG has an approved 99165r7P802-15_HRSG-PAR to develop a standard for high rate Wireless Personal Area Networks (WPAN). This PAR is targeted at data rates greater than 20Mbps. This PAR is targeted at short range networking with a radius up to 10m. The 802.15 PAR does not mandate use of the 802.11 MAC protocol.

By contrast, the 802.11 extension to be developed under the requested 802.11 PAR shall be compliant with the 802.11 MAC and shall be a Wireless Local Area Network (WLAN) standard.

IEEE 802.11a

The 802.11a standard defines a PHY for Wireless Local Area Networks (WLAN) that operates at data rates up to 54Mbps. The 802.11a standard is for the 5GHz U-NII bands. The new proposed 802.11b extension shall be interoperable with the existing 802.11b standard that operates in the 2.4GHz band.

13. [International](#) Harmonization

Is this standard planned for adoption by another international organization?

[Yes] { Yes/No/?? if you don't know at this time }

If Yes: Which International Organization [ISO]

If Yes: Include coordination in question 15 below

If No: Explanation [...]

14. Is this project intended to focus on health, safety or environmental issues?

[No] { Yes/No/?? if you don't know at this time }

If Yes: Explanation [...]

15. Proposed Coordination/Recommended Method of Coordination

Mandatory Coordination

SCC 10 (IEEE Dictionary) by **DR** {Circulation of **DR**afts}

IEEE Staff Editorial Review by **DR**

SCC 14 (Quantities, Units and Letter symbols) by **DR**

Coordination requested by Sponsor:

[ISO] by [DR] {circulation of **DR**afts/**LI**aision memb/**CO**mmon memb}

[.....] by [...] {circulation of **DR**afts/**LI**aision memb/**CO**mmon memb}

[.....] by [...] {circulation of **DR**afts/**LI**aision memb/**CO**mmon memb}

[.....] by [...] {circulation of **DR**afts/**LI**aision memb/**CO**mmon memb}

Coordination Requested by Others:

[...] {added by staff}

16. Additional Explanation Notes: {Item Number and Explanation}**Scope of the Project**

The scope of this project is to develop a higher speed(s) PHY extension to the 802.11b standard.

The new standard shall be compatible with the IEEE 802.11 MAC.

The maximum PHY data rate targeted by this project shall be at least 20 Mbit/s.

The new extension shall implement all mandatory portions of the IEEE 802.11b PHY standard.

The project will take advantage of the provisions for rate expansion that are in place on the current standard PHY.

The 802.11 MAC defines a mechanism for operation of stations supporting different data rates in the same area. The current 802.11b standard already defines the basic rates of 1, 2, 5.5 and 11 Mbit/s.

The proposed project targets further developing the provisions for enhanced data rate capability of 802.11b networks.

The 802.11 MAC currently incorporates the interpretation of data rate information and the computation of expected packet duration even if the specific station does not support the rate at which the packet was sent.

Regulatory Bodies

IEEE P802.11 will correspond with regulatory bodies worldwide in order to try to assure that the proposed extension will be applicable geographically as widely as possible.

Patents

The Working Group will adhere to the IEEE patent policy.

The [PAR Copyright Release and Signature Page](#) must be submitted by FAX to 732-562-1571 before this PAR will be sent on for NesCom and Standards Board approval.