

**IEEE P802.11**  
**Wireless Access Method and Physical Layer Specifications**

**Proposal for completed and improved PAR**

Submitted by Vic Hayes

Attached is a completed Project Authorization Request Form and improved attachments to the Form.

I have taken the text agreed at the Oshawa meeting, grouped the paragraphs on the same subject matter and placed a heading to each group.

IEEE Standards  
PROJECT AUTHORIZATION REQUEST (PAR)

1. Date of Request: **1990-11-15** 2. Assigned Project #:

3. Does this PAR revised a previously approved PAR?  YES  NO

4. Description of Proposed Document: Standard  New  Trial Use   
Recommended Practice  Revision  of Std. Full Use   
Guide

5. Project Title:  
**Wireless Access Method and Physical Layer Specifications**

6. Scope of Proposed Standard: *(Use attachment sheet if necessary)*  
**To develop a Medium Access Control (MAC) and Physical Layer (PHY) specification for wireless connectivity for fixed, portable and moving stations within a local area.**  
**Refer to the attachment for details**

7. Purpose of Proposed Standard: *(Use attachment sheet if necessary)*  
**To provide wireless connectivity to automatic machinery, equipment or, stations that require rapid deployment, which are portable, or hand-held or which are mounted on moving vehicles within a local area**  
**To provide a standard for use by regulatory bodies to control the shared use of one or more radio frequency bands.**  
**Refer to the attachment for details**

8. SPONSOR: Society: **Computer Society**  
Committee: **TCCC**

9. Name of Group that will write the standard: **IEEE P802**

10. Target Completion Date: **1992-12-31**

11. Proposed Coordination: *(See instructions.)* Method of Coordination:  
SCC10 (IEEE Dictionary)  
**Refer to the attachment for details**

12. Are you aware of any patent, copyright, or trademark issues?  YES  NO  
Are you aware of any standards or projects with a similar scope?  YES  NO  
*(If yes, attach a sheet with a complete description of the impact of the similarities.)*

PROJECT AUTHORIZATION REQUEST (PAR)

(cont'd)

13. Copyright Agreements for IEEE Standards

I hereby acknowledge my appointment as Official Reporter to the IEEE P802 Committee to write/revise a Standards Publication (entitled or to be entitled) Wireless Access Method and Physical Layer Specifications

In consideration of my appointment and the publication of the Standards Publication identifying me, at my option, as an Official Reporter, I agree to avoid knowingly incorporating in the Standards Publication any copyrighted or proprietary material of another without such other's consent and acknowledge that the Standards Publication shall constitute a "work made for hire" as defined by the Copyright Act, and, that as to any work not so defined, I agree to and do hereby transfer any right or interest I may have in the copyright to said Standards Publication to IEEE.

Name Vic Hayes (chair of working group) Title Chairman IEEE P802.11 Working Group Date

14. Person delegated to receive communications and conduct liaison with interested bodies:

(This is normally the chair of the working group. If not please indicate IEEE position.)

Name Vic Hayes Telephone +31 3402 76528 Company NCR Systems Engineering b.v. Fax +31 3402 39125 Address Zadelstede 1-10 Telex 47390 City Nieuwegein State NL Zip 3431 JZ E-Mail Vic.Hayes@Utrecht.NCR.COM

15. Submitted by:

(This is normally the sponsor's liaison to the Standards Board. If not please indicate IEEE position and relationship to the sponsor.)

Name Donald C. Loughry Telephone 408 447 2454 Company Hewlett-Packard Company Fax 408 447 3660 Address 19420 Homestead Road, M/S 43UC Telex City Cupertino State CA Zip 95014 E-Mail Don.Loughry%HP6600@HPlabs.HP.COM

**Supported service**

The Wireless MAC shall support both connectionless service as defined in the MAC Service definition at rates between 1 and 20 Mbit/s as well as a service supporting packetized voice.

**Compatibility requirements**

The specification shall meet the following standards and documents:

- the IEEE P802 Functional Requirements except that:
  - \* The proposed standard will meet all of the 802 Functional requirements, except that the probability that a MAC Service Data Unit (MSDU) reported at the MAC service interface contains an undetected error, due to operation of the conveying MAC and Physical Layer entities, shall be less than  $5 \cdot 10^{-14}$  per octet of MSDU length and the MSDU loss rate will be less than  $4 \cdot 10^{-5}$  for MSDU length of 512 octets, in a minimally conformant network.

A minimally conformant IEEE 802.11 network will meet these requirements over a minimally conformant radio service area. IEEE 802.11 will define standard approaches to allow minimally conformant systems to be enhanced to achieve full 802 functional requirements over the radio service area.

**Definitions**

Minimally conformant radio service location - a physical location at which radio service is available at least 99.9% of the time on an daily basis.

Minimally conformant radio service area - physical area in which at least 99.9% of the total geography consists of minimal conformant service locations.

- \* transmissions of one node do not necessarily have to be received by all other nodes simultaneously.

- IEEE 802.2/ISO 1003x,	the MAC service Definition
IEEE 802.1 A	Overview and Architecture,
IEEE 802.1 B	for LAN/MAN Management,
IEEE 802.1 D	for T and SRT bridges,
IEEE 802.1 F	for Guidelines for the Development of Layer Management Standards,
IEEE 802.10	Secure Data Exchange.

- The MAC design shall anticipate restriction on low-frequency pulsing below 100 Hz of Electromagnetic fields due to biological hazards.

**7 Purpose of proposed standard.**

To provide wireless connectivity to automatic machinery, equipment or, stations that require rapid deployment, which are portable, or hand-held or which are mounted on moving vehicles within a local area

To provide a standard for use by regulatory bodies to control the shared use of one or more radio frequency bands.

Note: To make this purpose feasible, this PAR also authorizes IEEE 802 to petition or provide comments to regulatory bodies worldwide (e.G. the FCC in the USA, the Department of Communications in Canada, the RF agency of the Department of Trade and Industry in the UK and the Radio Frequency Commission of the CEPT of Europe)

**10 Target completion**

Architecture definition available	March 1991
First draft standard ready for ballot in 802.11	Nov 1991
First draft conf standard ready for ballot in 802.11	March 1992
TCCC ballot of MAC & PHY standard	July 1992
TCCC ballot for conf standard	Nov 1992
Submission to ISO of MAC & PHY standard	Dec 31, 1992

**11 Proposed Coordination**

CCIR Interim Working Party trusted with q AM/8	draft circulation
CEPT/RFC/FM	draft circulation
ETSI	corresp/common membership
ECMA	corresp/participation
Worldwide Regulatory bodies	correspondence
ISA SC-50	Common membership
IEEE Vehicular Technology Society	Liaison
SCC10?	Liaison
ANSI X3S3	Liaison
IEC/TC83? fiber optics only	
O/IEC JTC1/SC6/WG1	
TCMM/MSC	circulation of drafts
ANSI ASC T1 advisory group in T1E1	correspondence
TIA telecom Industry Association	TBD
Include SAE, the society of Automotive Engineers	TBD
ACM? Association of Computing Machinery	TBD
ETSI RES ?	draft circulation

**12. Related Project**

CCIR Study Group 9 owns a project designated "Question Z/9" titled "Radio Local Area Networks". To date there is no understanding of the level of interest of the project.

To prevent duplication of effort, IEEE P802.11 has requested the mandate to liaise to CCIR.