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? X_YES __ NO  

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

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

6. Scope of Proposed Standard:  
   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:  
   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? X_YES X_NO  

   Are you aware of any standards or projects with a similar scope? X_YES __ NO  
   If Yes, attach a sheet with a complete description of the impact of the similarities.
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.)

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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
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Zip: 95014 E-Mail: Don.Loughry@HP8000@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 $5 \times 10^{-14}$ per octet of MSDU length and the MSDU loss rate will be less than $4 \times 10^{-5}$ 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 a 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 10035, 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

<table>
<thead>
<tr>
<th>Architecture definition available</th>
<th>March 1991</th>
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<tbody>
<tr>
<td>First draft standard ready for ballot in 802.11</td>
<td>Nov 1991</td>
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<tr>
<td>First draft conf standard ready for ballot in 802.11</td>
<td>March 1992</td>
</tr>
<tr>
<td>TCCC ballot of MAC &amp; PHY standard</td>
<td>July 1992</td>
</tr>
<tr>
<td>TCCC ballot for conf standard</td>
<td>Nov 1992</td>
</tr>
<tr>
<td>Submission to ISO of MAC &amp; PHY standard</td>
<td>Dec 31, 1992</td>
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</tbody>
</table>
11 Proposed Coordination

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

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.