IEEE 802.11
Wireless Access Method and Physical Layer Specifications

Title: **IEEE Requirements Document comments on doc # 92/01**

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Abstract: The following is a list of comments, questions or remarks on the IEEE Project
802.11 "Wireless Local Area Network Requirements" document.

C-1:   Introduction

Q -   How living is the document after sign-off.
   .   Synchronous exported services to be specified.

Q -   Should several conformance levels be specified, to cover for instance different moving
speed ranges.

p4:   Need a reference MSDU size specification for the transfer delay numbers. Note: 2 msec
transfer delay for a 64 byte octet is much different from a 2 msec transfer delay for a
1024 octet MSDu size. Suggest reference to be 128 octets, as suggested in page 24.

p4-   Is it correct that "Service Initiation Time" is only applicable for connection oriented
services?

p7-   Clarification of "Interference distance" needed. Is this the "Signal-to-Interference" ratio (SIR) in dB?
We need to have a term for the SIR at which a good service quality can be obtained.

p10-   The Multicast/Broadcast transfer reliability cannot be guaranteed in a wireless environment. When is this deviation from the general 802 MAC service definition to be covered and how?
Q-   What kind of applications use group/Multicast addressing?

p11:   How about IEEE 802.9 IVD LAN draft standard reference?

C-2:   General Requirements

p14:   What are distribution system standards for Sync traffic? No 802 equivalent standard available?

p14:   Security/Integrity
The method used should be world-wide applicable without restrictions.

p14:   Isn't "Roaming" support a to be specified general requirement?

p15:   Shouldn't the 802.2 "Bridge" functions be limited to "single leave" support only. We should prevent bridging from one network to another via the wireless medium.
Q: What should this mean for a Directional Antenna point-to-point link and its co-existence with the 802.11 LAN.

p15:   What kind of "Bridge" functionality is supported? I Would expect that the "Access Point" would use a MAC Bridge approach.

p15:   Perhaps delete the "Complete Architectural Scope" (Fig 2.2) from this document altogether to keep it general enough. To cover also sync and bridging services, much more pictures are needed.

C-3:   Media Access Control Layer

-   Sections 3.2.1 through 3.2.3 should better be deleted, because they relate to implementation, rather than requirements.

-   Also section 3.3 could better be deleted because it does relate too much to implementation.

p19:   All "To be supplied" sections should be specified before "ballot".

p20:   Shouldn't support for the different NOS's and protocol stacks be a prime requirement? Why is NDIS and ODI referenced here? They are more interface specifications than NOS protocol stacks.

p23:   Don't see the median jitter conclusion?

p25:   Sync maximum transfer delay of 10 msec is equal to the nominal delay specification. I would expect 20 msec.

p27:   Internetworking: Does this sufficiently cover the Sync internetworking requirements. Suggested extension:
"belonging to a given LAN. However, this requirement does not apply to interconnection with other networks e.g. those using ISDN protocol stacks." (JK)

p28:   Add Arcnet
Also SNMP is a industry standard

C-4   Physical Media Layer:

p29:   Suggest to delete end p29, p30 and p31, because they are not requirements, but more implementation details.

p32:   Delete 4.3.2 if possible

Delete 4.3.4 because 18 GHz requires license, so is not in accordance with the general requirements.

Appendices:

A: Education: Video anticipated for "Field Study", why then not for other education applications.

B: Finance: Only trading floor application described.
Need description of Bank/Branch transaction applications, or at least a reference to possible "office" requirements covering this type of traffic characteristic.

C: Industrial: No Comments

D: Medical: No Comments
E: Meetings: No Comments

F: Office:
-   F2.3 SNA and DECNET are no NOS's. Suggest to generalize to mention support for different protocol stacks.
-   Why no Banyan support?
-   F2.6 use # of stations per hectare

G: Retail:
-   Change "enterprise" to premises/store
-   Need hypermarket application with much higher station density.
-   Need to cover different (future) applications related to automatic shelf labeling. This is documented in contribution # IEEE P802.11-92/15

H: Warehousing: No comments
I: Multi Media: No comments

Issue's in deleted sections:

p18:   end of section 3.2.2. Why full duplex characteristic required?

p19:   Quality of Service info should also include receive level information.

p20:   TxClock should be supplied by PHY. Usually needed for synchronous sampled systems to keep sampling clock in sync with the bit and symbol clocks.

p31:   -   Point 5 statement is not clear in defining the "Interference distance".
            -       Point 9 should be much stronger. A measurement of interference level at one station is <u>no indicator</u> of the interference level of another station.

p32:   Section 4.3.3 item 1. I don't understand why item 9 can be removed from the general PHY characteristics.