

**Wireless LANs
Proposed comment on the Notice of Inquiry (NoI)
of the NTIA**

Introduction

I propose to file the following comments in response to the Notice of Enquiry of the NTIA, doc: IEEE P802.11-92-102.

Background of IEEE P802

copy the IEEE p802.11 credentials from the FCC filings.

Request for Spectrum for Wireless LANs in the 5 and 6 GHz Range

The FCC has identified the importance of the allocation of spectrum for radio communications among computers in buildings or on campuses. The Commission has released a notice of inquiry for the allocation of 20 MHz in the 1.8 GHz area to satisfy the need of a group of unlicensed services. Within the 20 MHz, however, only 10 MHz has been set aside for high speed data communications among computers.

IEEE P802.11 has consistently requested the FCC and other national regulatory agencies around the world to allocate 70 - 140 MHz in order to satisfy the requirement for small response times even in areas which a high density of computer users.

To satisfy the small response times bandwidths of 10 MHz per channel would be needed to obtain a sufficiently high data rate. To provide a system solution, however, multiple channels are required to satisfy the throughput requirements in high density areas such as office buildings. The committee estimates that 15 channels will be required in the long term.

Spectrum availability below 3 GHz is very limited and the FCC actions will facilitate the development of many more other new services in that area.

The need for radio communications among computers has also been recognised in Europe. Many European countries have made a study to share this type of service, further referred to as RadioLAN, with Aeronautical Radio-Location

service in the lower 5 GHz area. Studies have shown that compatibility is possible between RLANs and systems operating in the Radiolocation Service and in the Aeronautical Radionavigation Service (RR 799) in the 5 and 17 GHz frequency range. It was also shown that Microwave Landing System (MLS) as being planned in the 5000 - 5250 MHz band were not interfered with when radio-LANs would be used in an adjacent band (compatibility distance 11 m).

It seems that European countries will be advised to allocate RLANs in the [preferred option 5150 - 5300 MHz] [second option 5250 - 5400 MHz] {{selection is expected to be made at the meeting of CEPT Working Group FM, scheduled to be held 21-25 September 1992, Final approval is needed from the CEPT ERC, scheduled to meet in October}} band.

Systems designed to operate in those bands are required to conform to the so-called HIPERLAN (High-Performance European Radio LAN) Standard, currently in preparation at ETSI. ETSI is the European Telecommunications Standards Institute; IEEE P802.11 has strong liaison with this group. By requiring systems to operate according to the standard, the utilization of the spectrum could be very efficient.