

**IEEE P802.11  
Wireless LANs**

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**Suggestions for Comments on The UK Document  
Future Licensing of Radio Based Public Telecommunications Services in the 2.4  
GHz Band - A Consultative Document from the Radiocommunications Agency.**

**Date:** September 18, 1998

**Author:** IEEE p802.11 Task Group

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**Abstract**

The subject UK Radiocommunications Agency document<sup>1</sup> proposes a program of licensing of the 2.4 GHz band used by the IEEE p802.11 standard. Licenses would be sold to service providers for use in access links to homes and businesses.

This practice would threaten the use of Radio LANs in many locations, including homes and small businesses.

It is suggested that companies and other organizations interested in using or providing Radio LANs file responses requesting equal priority of RLANs and licensed Radio Fixed Access (RFA) operation. This document suggests some points that might be made in such comments and provides an example letter. Responses should be in the UK Radiocommunications Agency offices by October 1, 1998.

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<sup>1</sup> This document can be obtained at [www.open.gov.uk/radiocom/future24/future24.html](http://www.open.gov.uk/radiocom/future24/future24.html)

## Purpose

The consultative document proposes to license the 2.4 GHz band now used by IEEE 802.11-compliant wireless LANs to communication service providers for Radio Fixed Access (RFA). This could have a serious negative impact on Radio LANs (RLANs) in the UK. Traditionally, licensed users have a higher status in radio spectrum use than unlicensed users of systems such as 802.11 compliant LANs. Radio regulations have been prejudiced against unlicensed operation and it can be expected that this would continue in this case. Our intent is to petition the Radiocommunications Agency to require that RFA services coexist with existing and future RLAN services which conform to 300-328 and CEPT Recommendation T/R 10-01 and not take precedence over RLAN services.

RLANs are mentioned in section 3.3 of the consultative document as possible sources of interference into RFA systems and the consultative document requires that compatibility studies be performed before a license is issued. However, the document is more concerned with the possible effect that interference into RFA systems would have on access reliability than it is with the interference generated by RFAs into RLANs.

This document identifies potential points which companies and other organisations may make concerning the UK Licensing proposal. IEEE p802.11 recommends that all participants file such a comment requesting that such licensed operation not be given precedence over unlicensed RLAN operation.

If licensed RFA is given precedence, RLAN systems could be disadvantaged.

The appendix is an example letter containing points that could be made in such filings.

## Recommendation

All organizations interested in providing or using RLANs are encouraged to respond to the subject consultative document of the UK Radiocommunications Agency and request that unlicensed ETS 300 328 and CEPT Recommendation T/R 10-01 compliant RLAN services be given equal status with licensed RFA systems permitted under the ETSI and CEPT requirements, and that licensed RFA systems not be permitted to preclude the operation of unlicensed RLAN services which conform to this requirement.

Responses should be in the Radiocommunication Agency offices by October 1, 1998. They should be addressed to:

Brian Last  
Radiocommunications Agency  
11<sup>th</sup> Floor  
New Kings Beam House  
22 Upper Ground  
London SE1 9SA

Copies should be sent to:

Alan Proud  
Department of Trade and Industry  
Communications and Information  
Industries Directorate, Room 204  
151 Buckingham Palace Road  
London SW1A 9SS.

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**Appendix - Example Response****Response of (Company or Organization) to the UK Document  
Future Licensing of Radio Based Public Telecommunications Services  
in the 2.4 GHz Band - A Consultative Document from the  
Radiocommunications Agency.****Introduction**

(Company or Organization) respectfully submits the following comments in response to the subject consultative document of the Radiocommunications Agency. (Company or Organization) (manufactures, supplies or uses) unlicensed Radio LAN (RLAN) devices and systems which conform to ETS 300 328 and come under CEPT Recommendation T/R 10-01. RLAN devices and systems serve important needs of all citizens and (Company or Organization) requests that if licenses are issued for operation of Radio Fixed Access (RFA) systems as proposed in the consultative document that operation of RLAN devices conforming to ETS 300 328 under CEPT Recommendation T/R 10-01 be maintained in equal status with such licensed operation.

The following facts support our request.

**The Likelihood of a Spectrum Conflict Between RLANs and RFA is High.**

RLANs are currently being deployed in large industries, small businesses, universities and other educational institutions, hospitals and other medical facilities, small businesses and homes. Therefore, RLANs and RFA must coexist.

If RFAs are permitted to take precedence over RLANs this could severely impede the deployment of RLANs. This could prevent UK citizens from being able to take advantage of the convenience of RLAN use. It will effectively remove a major convenience system from use in the UK.

**The Use of RLANs is Expanding Worldwide and Adoption will Accelerate.**

There is an installed base of approximately 6 million RLAN radios operating in this band. The growing market acceptance of wireless LANs is evidenced by an industry annual growth rate of between 40% and 60% for the past 5 years. The introduction of the standard is expected to accelerate wireless LAN adoption world-wide.

The IEEE 802.11 standard was adopted in July, 1997, governing specifications for equipment manufacturers to develop and deploy RLAN networks supporting voice and data services. History indicates, and the growing RLAN sales volumes supports, that major market development world-wide will follow standards approval. Major markets include large industries, small businesses, universities and other educational institutions, hospitals and other medical facilities, small businesses and homes.

The strong interest in wireless local area networking is evidenced by the number of individuals and corresponding company sponsorships in the IEEE P802.11 working group. The IEEE 802.11 Working Group currently has 98 voting members employed by approximately 58 companies.

**Surveys are Not Sufficient to Prove RFA Spectrum will Remain Clear**

Section 4.2 of the consultative document requires the license applicant only to demonstrate that a system is robust relative to the current RF environment. RLANs are not now in widespread use as the market continues to develop. Field strength monitoring of the current levels will not reflect the future.

**Conclusion**

The benefits of RLAN devices and systems are extensive and such devices and systems are being deployed worldwide at an accelerating pace. These benefits are threatened for UK citizens if licensed RFA operation is permitted to have a higher status than RLANs. Further, RF surveys of the current electromagnetic environment will be ineffective because the widespread advent of RLANs is just beginning.

(Company or Organization) therefore asks the Radiocommunications Agency to provide assurance that RLAN devices and systems will have equal status within the regulations with all systems admitted under the licensing arrangement of the consultative document.