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15th November 2001

**Re: Use of Licence-Exempt Spectrum For Provision  
of Public Telecommunications Services.**

Dear Mrs Miller,

Please find below the Community Media Association's response to the above, which I hope you will find to be of interest.

The Community Media Association is the sector body for Community Media in the United Kingdom. Apart from broadcast Community Media, the CMA is also involved in community uses of Internet technologies, hence our response to this document.

Please note that the following responses to the consultation document, are concerned with **frequencies above 1 GHz**. The CMA considers that lower frequencies are already crowded and are not suitable for use by wireless Internet applications on a large scale basis. In some locations, it is likely that only **frequencies above 5 GHz** will be available / suitable for such applications, due to the scale of usage already in situ.

In our document '**Commedia Manifesto – Access to the media for people and communities**', published in December 2000, the CMA stressed that:

***Government should ensure universal access to the Internet at affordable fixed tariffs and including higher bandwidth***

***services capable of carrying broadcast quality sound and vision.***<sup>1</sup>

In pursuit of this aim, the Commedia Manifesto, made two, more specific, points of particular relevance to this particular debate:

***(i) Government should reserve sufficient spectrum for a range of non-commercial broad-band wireless applications to evolve based on TCP/IP protocol with access on a licence exempt basis or at an affordable, non-market price for non-commercial private and public usage.***

And;

***(ii) Spectrum already available at 5 GHz and allocated for the new HyperLAN standard should be reserved exclusively for non-commercial private and public use on a licence exempt basis.***<sup>2</sup>

With the above in mind, the CMA is concerned that the consultation document tends towards an entirely business view of spectrum usage and thus fails to recognise the wider social benefits of using such resources on a not-for-profit basis.

In terms of spectrum usage, maximising economic gains cannot be measured simply in terms of factors such as 'e-business throughputs'. That said, such direct economic benefits can only be maximised by an approach which ensures that all sections of the community have affordable and reliable connectivity to the Internet in the first place.

Whilst dial-up telephone connectivity is easily obtained, this is very limited in terms of capacity (an absolute maximum of 56 kilobits per second, and, typically, considerably slower). Many Internet applications require 'broader-band' connectivity in order to be attractive propositions, indeed the Internet experience generally can be greatly enhanced by increased speeds of connection. Therefore, the issue is not simply one of basic connectivity at an affordable price, rather, there is a need to 'role-out' affordable 'broad-band' (> 128 k/bits per sec) Internet connectivity to improve perceived Internet performance and open wider opportunities for usage.

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<sup>1</sup> Community Media Association: ***Commedia Manifesto – Access to the media for people and communities.*** (Sheffield, December 2000), Page 8.

<sup>2</sup> Community Media Association: ***Commedia Manifesto – Access to the media for people and communities.*** (Sheffield, December 2000), Page 8.

Proposals to allow the development of Wireless Internet technologies to flourish will encourage this process. Given the slow up-take of ADSL (hampered both by cost and availability problems) and the lack of universal cable availability, wireless technologies are one way to 'plug the gap'.

Although such wireless systems, when mass-produced, tend, since they avoid the need for expensive wiring, to be cost effective technologies, commercial business models will inevitably want to 'cherry-pick' areas which offer the best returns on their investment. Unfortunately, in a wider policy context, such business approaches inevitably, by definition, fail to address the need to maximise higher-speed Internet access for all as previously outlined.

Whilst the CMA recognises that business interests must be fully supported through access to spectrum and sensible spectrum planning, such planning must not result in 'protectionist' approaches which limit the scope for wider Internet and Community Media developments.

It is for this reason that the CMA strongly supports the concept of not-for-profit Community WLAN's. Such wireless networks would not only fill in the gaps in commercial network roll-outs but would also provide connectivity with minimal recurrent charges to the end-user.

For such an approach to function, Regulatory Scenario 3 would need to be implemented:

***The provision of public telecommunication services is permitted in licence-exempt spectrum without a WT Act licence, but with base station registration.***<sup>3</sup>

Our support for such an approach would be conditional on its operation in tandem with a policy that delivers fair and equitable allocation of spectrum to not-for-profit and private users, and which ensures that commercial operations are prevented from 'spectrum hoarding' in order to hinder the development of alternative not for profit service providers.

Base-station registration, as referred to above, could and should also be used as a tool in equipment and frequency selection. Those interested in operating a 'node' could use such a data-base to check for existing installations nearby that might affect their proposed operations.

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<sup>3</sup> RadioCommunications Agency Consultation Document: **Use of Licence-Exempt Spectrum For Provision of Public Telecommunications Services**. (London, October 2001), Page 8 (Section 5.1).

There is no 'rocket-science' to the proposal outlined above, indeed private networks along similar lines are already a part of everyday life. The impact of changing the regulatory framework to allow public access to such networking technologies would simply speed their introduction and allow many communities to reach high levels of Internet connectivity faster would otherwise be possible.

Whilst this response is of a general nature and does not specifically address each of the individual questions raised in the consultation document, the CMA does have some specific comments on selected points.

**Questions 2 & 3 (concerning where interference to existing users might occur and frequency congestion)**

As a limited resource, there are often competing demands for access to frequency spectrum, not all of which can always be met in full. The question therefore becomes one of prioritisation and the CMA would argue that, where mutually exclusive demands arise, priority should be given to those that are least able to access alternatives, either as a result of licence restrictions or on the grounds of their ability to pay. To some extent, the issue of interference to existing users must depend upon the type of service they are using the spectrum for, and the terms under which they have been allowed to use the spectrum.

In many instances, the appearance of congestion is easy to predict, clearly it will occur most quickly where demand is greatest. Typically, experience suggests that this will be in the major centres of population. However, in the case of licence-exempt spectrum, difficulties may also arise away from major conurbations, in specific locations where alternative 'wired' systems may not exist, thus increasing demand for alternative wireless solutions.

The scale of frequency congestion (and therefore an increase in the potential for interference, and actual cases of interference) will, of course, be dependent upon uptake and is thus likely to increase over time. That said, technological developments such as improved spectral occupancy for a given data through-put and more cost effective exploitation of higher frequency bands etc., can be expected to offset such trends as they develop.

**Question 8 (Are there any potential problems associated with allowing commercial services in licence-exempt spectrum?)**

A particular legislative concern over the use of licence-exempt spectrum for public telecommunications services is the issue of protection against 'swamping' by major commercial operations. This is the primary reason why the CMA firmly believes that spectrum allocations should be made in such a way as to ensure they are accessible by not for profit organisations wishing to provide services to a wider public.

Our understanding is that under the terms of the EU 1999 Legislative Review ([europa.eu.int/ISPO/infosoc/telecompolicy/review99\\_review99en.pdf](http://europa.eu.int/ISPO/infosoc/telecompolicy/review99_review99en.pdf)) it is not possible to distinguish between self provision and service provision for profit. It follows that any spectrum allocation and licensing framework must therefore deal with all potential licensees in a similar manner, and our concern would be to ensure that such equality of treatment does not, in reality, give undue advantage to commercial concerns.

To draw an analogy with traditional broadcast media, there might be said to be a kind of 'public service' ethos to the provision of high-speed Internet access on a not-for-profit basis in that it is a method of boosting universality of availability faster and more cost-effectively than would otherwise be the case.

The CMA fully supports the Government's goal of Internet access for all. We firmly believe that a regulatory structure which supports and encourages innovative community based projects using wireless access on a not-for-profit basis will help speed the achievement of this objective.

Should you have any queries relating to the above, please do not hesitate to contact me at the Community Media Association's Head Office in Sheffield.

Yours Sincerely,

Lawrie Hallett.  
[Broadcast Consultant  
Community Media Assoc.]