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**Broadband Fixed Wireless Access (BFWA) at 28 GHz:  
Proposals to amend new and existing licences and for the  
next stage of the award process.  
October 2002**

## **Responses from Radiant Networks PLC**

### ***Background Comments and Interpretation***

With respect to clause 3.1 in the consultation document, Radiant Networks finds interpretation of Recommendation 8.4 of the “Cave Review” ambiguous with respect to the phrase “...any fixed service”. Currently the UK 28GHz BFWA licences already allow deployment of any fixed service network architecture whether it is considered as point to multipoint (P-MP), point to point (P-P) or multipoint to multipoint (MP-MP). There are no restrictions regarding the fixed service technology within the framework of the published co-existence standards other than those upon which the interference management measures are based.

Therefore when considering our response to Q1 in the light of Recommendation 8.4, we have interpreted the proposals regarding the “purpose of use” statement and the “...any fixed service” statement as applying to *applications*<sup>1</sup> within the fixed service.

With reference to clause 3.2 of the consultation paper, we would also point out that efficient spectrum use is not necessarily fostered by removal of restrictions. Technical studies within the standards bodies<sup>2</sup> indicate that co and adjacent frequency sharing issues between MP systems and “protected” P-P links<sup>3</sup> make sensible deployment of MP and P-P systems extremely difficult (if not virtually impossible) within the same regional licence area. This would lead to extremely inefficient use of the 28GHz band.

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<sup>1</sup> Informally generalised as either access (usually directly to end-users) or as backhaul (generally supporting another access network).

<sup>2</sup> See ETSI Technical Report TR 101 853 and IEEE draft IEEEEP802.16.2a/D2-2002 (this draft is not yet published; contact the IEEE 802.16 chair Dr. Roger Marks for further information [r.b.marks@ieee.org](mailto:r.b.marks@ieee.org) )

<sup>3</sup> “Protected” in the sense that the user is guaranteed availability through full co-ordination and link planning procedures.

## **Specific Responses**

*Q.1 Do you agree that the “purpose of use” clause should be removed from existing and future 28 GHz licences?*

**Response:**

Not entirely.

Radiant Networks supports the removal of restrictions on connections to other telecommunications networks as this may increase the attractiveness and encourage take up of 28GHz licences. However, the ultimate licensing objective and the priority towards access provision should not be undermined or diluted. To do this may result in a negative effect and increase uncertainty regarding the long term access to spectrum and the market opportunity whilst defocusing industry efforts to develop highly spectrally efficient, high capacity wireless access systems.

The data rate target of at least 2Mbps should remain as a sensible goal for dimensioning truly broadband networks. Modern wireless access systems are more than capable of meeting this requirement that will help ensure the Broadband Britain objectives are fulfilled to the greatest extent.

*Q.2 Do you agree that the “use it or lose it” clause should be removed from existing and future 28 GHz licences?*

**Response:**

Not entirely.

Radiant Networks is aware of a number of difficulties in applying and administering the “use it or lose it” clause in the current licences and support deletion of this clause in its current form.

However the regulatory body should retain some powers to ensure that spectrum acquired is used and not retained merely as a tradeable asset or as a means to block spectrum access by competing operators.

*Q.3 Do you agree that the minimum path length policy should apply where a licensee provides point-to-point links to other operators?*

**Response:**

Radiant Networks does not agree with any restriction that is placed on a specific network architecture. This leads to difficulties and ambiguities with interpretation that can be difficult to resolve with modern day systems. The trend within standards and regulatory groups in recent times has been to promote “technological neutrality” when considering any regulatory framework.

More importantly, if the implication behind this proposal is that operators might deploy “protected” P-P links (instead of applying for assignments in the range of UK Fixed Link bands) then we would strongly re-iterate the words of warning encapsulated above in the Background Comments section. Mixed system deployment difficulties would lead to interference issues that will severely curtail the ability of the spectrum to support the widescale BFWA objectives.

*Q.4 Should the government consider making any other changes to the licences and, if so, for what reasons?*

**Response:**

Yes.

In the current wireless access business environment it is difficult to foresee immediate demand for three licences in many of the regions on offer. Additionally, cautious financial backing leaves potential operators unwilling to commit to a licence if there is significant doubt about the business case viability. On one side there is demand and a governmental drive to increase the availability of broadband services and on the other side investment and commitment by industry to develop appropriate high capacity, spectrally efficient means of wireless access delivery. Access to spectrum is required to bring these two sides together.

Therefore Radiant Networks believes the Radiocommunications Agency should investigate alternative licence packaging and assignment processes for at least one of the three licence blocks. For example, the possibility to obtain licences on a more localised basis may reduce the operator's financial risk and start to break the deadlock over spectrum access.

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