



Introduction

The following comments are provided by Mason Communications (Mason) in response to the RA's consultation of October 2002, "*Broadband Fixed Wireless Access (BFWA) at 28 GHz: Proposals to Amend New and Existing Licences and for the Next Stage of the Award Process*" (deadline for receipt of comments: 14 November 2002). To facilitate comments being made available via the RA's web site, our comments are provided electronically. We would be pleased to elaborate further on the points raised, if required.

General

Mason is an independent telecommunications and IT consultancy with expertise in all aspects of wireless communication. Mason has a significant track record in developing BFWA business cases, designs and implementations for a number of current and prospective licence holders in the UK and across Europe. Mason also has extensive experience of defining broadband requirements for Enterprise and Government organisations.

Our position as independent advisors gives us a unique insight into the different, and sometimes conflicting, issues faced by the supply and demand sides of the Broadband market in the UK. We believe that a licensing regime is needed to allow issues and potential conflicts to be resolved in the best interests of all stakeholders, and that such a regime is possible, given appropriate inclusive planning.

We have based our response on the following two objectives, which are reflected throughout the remainder of this document:

- 1) Promoting the development of Broadband Britain
- 2) Making efficient use of the 28 GHz spectrum.

We recommend consideration of the following two proposals as a potential basis for resolution of the issues, consistent with the objectives above:

- 1) Retain the option to open up the 28 GHz spectrum for other fixed services (e.g. backhaul) in due course, but with suitable controls to ensure the provision of broadband access is prioritised
- 2) Allow for sub regions to gain access to spectrum in an efficient manner, with suitable licensing control.

We provide a succinct response to each question, followed by our view of the main issues faced by both supply and demand sides, and our recommended way forward.



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Consultation Question 1: Do you agree that the “purpose of use” clause should be removed from existing and future 28 GHz licences?

Mason’s current view is that the ‘purpose of use’ clause should be retained for a further round of auction, on the proviso that if licences are not taken up within a defined period, consideration be given to modifying this clause.

On the supply side, our experience of business planning for BFWA operators shows that removing this clause could benefit the BFWA business case, since it would potentially allow operators to deploy unutilised spectrum for other fixed wireless links (the main application being the backhaul of traffic from other networks). This could, in time, stimulate investment in BFWA deployment by introducing an additional revenue stream to the operator, of benefit in licence areas where the business case would otherwise have been marginal due to the relatively limited access market. Other operators, in particular the 3G mobile operators, are also likely to be interested in owning 28 GHz spectrum for point to point backhaul in their own networks.

On the demand side, we note that narrowing the divide of broadband services between urban and rural regions of the UK is a key objective in wider Government terms. We feel that BFWA has a key role to play in extending broadband access to areas not currently served by other broadband technologies.

Balancing the arguments, we feel that retaining the ‘purpose of use’ clause for a further round of auction will encourage additional take-up of licences for broadband services to end-users outside of the main urban conurbations of the UK, when coupled with our recommendation in Question 2 below. We do not rule out future modifications to the clause, although we recommend that these should be made with a view to prioritising the use of 28 GHz for broadband user access, over alternative uses.

Consultation Question 2: Do you agree that the ‘use it or lose it’ clause should be removed from existing and future 28 GHz licences?

Mason supports this proposal, although we recommend that consideration is given to an alternative clause which opens the possibility of spectrum trading under certain circumstances.

On the supply side, Mason’s experience of business planning for BFWA operators shows that the cost of meeting the regulatory coverage obligation¹ in some licence regions makes the operator’s business case unattractive which has, we believe, contributed to the lack of take up of 28 GHz licences in the UK outside of the main urban areas. The cost of rollout is exacerbated by the (currently) limited economies of scale in BFWA equipment in general (both 26GHz and 28GHz). As a consequence, the cost of network and CPE equipment remains relatively high in the current market, further driving the need to target clusters of high data rate/value add service users from each base site. This results in a preference for

¹ WT Act Licence, Schedule 1, paragraph 4 states: "The Licensee shall install, maintain and use the Radio Equipment in such a way as to enable the provision of services by means of the BFWA Network in the Region(s) to at least 10% of Local Units by no later than 30 June 2002 and thereafter until the expiry or earlier termination or revocation of this Licence"



“cherry picking” in the initial BFWA rollout, although operators may extend investment in base stations in due course as initial return on investment is achieved, to increase their business and thereby extending broadband access beyond the initial hot spot coverage.

On the demand side, we reiterate the Government objective to narrow the divide of broadband services between urban and rural regions of the UK. We note that there are a number of smaller ‘local’ players who may be interested in providing services on a sub-regional basis, but are effectively excluded from bidding for 28 GHz BFWA licences due to the cost associated with the comparatively large regions licensed.

Balancing the arguments, we endorse the removal of the “use it or lose it clause”. We recommend that consideration be given to allowing smaller regional players to gain access to spectrum in local areas (with appropriate controls for frequency coordination, etc). We suggest that the relatively large regions for licensing are retained in order to simplify the bidding process for larger regional or national operators looking for wide area availability of BFWA, but that consideration is given to spectrum trading arrangements which could open up possibilities for the licence holder to lease spectrum to smaller ‘local’ players who may be interested in providing services on a sub-regional basis, for instance in support of Regional Development Agency initiatives. We believe this approach will benefit UK consumers by extending broadband services to regions currently not served.

Consultation Question 3: Do you agree that the minimum path policy should apply where a licensee provides point-to-point links to other operators?

In principle we support that the minimum path link policy should be similarly applied in the 28 GHz band, if spectrum is used for point-to-point links, as is applied in other fixed links bands. Mason’s view is that the critical aspect in terms of ensuring spectrum efficiency is the effective re-use distance, which depends on the planned availability of the link as well as the path length. For instance, our view is that meeting an enhanced availability target (e.g. of 99.995% or above) will lead to unnecessary sterilisation of spectrum. We would therefore suggest that no point-to-point links in the 28 GHz band should be planned to more than 99.99% availability since this will avoid sterilising re-use of that frequency.

Consultation Question 4: Should the Government consider making any other changes to the licences, and, if so, for what reasons?

Mason believes that further consideration should be given to means of extending the reach of broadband in rural areas.

We note in this regard that the introduction of spectrum trading could enable parts of a licence block to be sub-leased by the licence holder. As described in our response to Question 2, this could be beneficial in extending the reach of BFWA since it might enable smaller ‘local’ players to emerge, providing service on a sub-regional basis (e.g. in support of Regional Development Agency initiatives or a particular County Council area within the more widely defined licence region).