

85 Fleet Street, London, EC4Y 1AE
Tel: 020 7936 4600 Fax: 020 7842 3300
DX: 448 London Chancery Lane
www.mablaw.com

our ref: EPOM/kas/45327-2
your ref:

Ms Robindhra Mangtani
General Counsel
Ofcom
Riverside House
2a Southwark Bridge Road
London
SE1 9HA

BY EMAIL ONLY
robindhra.mangtani@ofcom.org.uk

4 August 2014

Dear Sirs

CellAntenna Limited

Please find enclosed a response on behalf of CellAntenna Limited to the Ofcom call for input entitled "*Mobile Coverage Enhancers and their use in licensed spectrum*" dated 7 May 2014.

Please acknowledge receipt of this response.

If there is anything further with which we can help you concerning CellAntenna's response and, in particular, if you think it would be useful, for example, to have a meeting concerning this issue we would be happy to try and arrange one the next time that our client's principal, Howard Melamed, is in the United Kingdom.

Yours faithfully



Matthew Arnold & Baldwin LLP
Tel: 020 7842 3360
E-mail: ted.mercer@mablaw.com

Enc.

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title: Mobile Coverage Enhancers and their use in the licensed spectrum

To (Ofcom contact): Robindhra Mangtani

Name of respondent: CellAntenna Limited

Representing (self or organisation/s): Self

Address (if not received by email): c/o Matthew Arnold & Baldwin LLP, 85 Fleet Street, London, EC4Y 1AE

CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

Nothing

☒

Name/contact details/job title

☐

Whole response

☐

Organisation

☐

Part of the response

☐

If there is no separate annex, which parts?

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

☐

Name E.P.O. Mercer

Signed (if hard copy)



CellAntenna

Response to Ofcom Consultation

Mobile Coverage Enhancers and their use in licensed spectrum

CellAntenna is a worldwide leader in solving mobile communications problems inside buildings vehicles emergency operation centres and other structures. It supplies systems and expertise to over 75,000 customers worldwide and CellAntenna's in-building repeater packages and custom systems boost mobile phone signals in respect of conditions greatly reduce the potential for experiencing dropped calls and allow mobile phone users to use their phone even deep inside buildings, basements, car parks and other areas.

CellAntenna has offices and warehousing located in London. It also has offices in Poland, South America and at its US headquarters in Coral Springs, Florida. CellAntenna's engineering installations department has provided solutions and facilities as big as 500,000 square feet convention centres and multistory high rise buildings. The systems provide coverage whatever the size of the building, large or small, or the number of floors as long as there is sufficient signal outside the building. CellAntenna supplies custom designed and out of the box package solutions and also specialised solutions for vehicle mobile command centres etc. CellAntenna systems can be supplied into integrated Wi-Fi components to provide system compliant wireless LAN coverage inside a building either as a stand alone system or coupled together with mobile coverage.

CellAntenna has been providing legal and compliant equipment in the United Kingdom for some time.

CellAntenna believes that its comments helped to shape the US's view of this area where such equipment is lawful.

The Legal Position

CellAntenna believes that Ofcom has a duty to exempt what it believes would be the majority of enhancers from the need for a specific licence. This is because Section 8 of the Wireless Telegraphy Act 2006 (of which the precursor was Section 1 of the Wireless Telegraphy Act 1949, Communications Act 2003) makes it clear (as is required by Article 5 of the Authorisation Directive of the EU) that if Ofcom are satisfied in respect of conditions with respect to the use of stations or apparatus of a particular description, they must make regulations exempting the establishment of that apparatus from the need for a licence. The conditions that are involved here include:

1. That the apparatus is not likely to involve undue interference with wireless telegraphy. "Undue interference" has the same meaning as "harmful interference". What that means was considered in (as the Ofcom Consultation Paper points out) *Recall Support Services Limited and Others -v- The Secretary of State for Culture Media and Sport* [2013] EWHC 3091 (Ch). Where the apparatus is compliant with the emissions and general equipment requirements (so that it carries the CE mark)

and is compliant with the relevant ETSI or adopted standards, it is most unlikely to be causing harmful interference with the emission of unwanted signals. It may cause what pejoratively could be described as congestion but that is not "harmful interference" as it can be defined.

2. It is not the case as the Consultation Paper seems to suggest that in such circumstances Ofcom may exempt such apparatus from the need for a licence. Rather it is under an obligation and a duty to do so unless one of the other factors in Section 8 (5) of the Wireless Telegraphy Act 2006 can be brought into play.
3. Moreover, it would, looking at the other conditions set out in sub-section 8 (5) appear that the only other condition that could be of application is 8 (5)(b) where the apparatus could "have an adverse effect on technical quality of the services" except that of course congestion or what happens in cases of congestion is something which is built into the ETSI's standard. Congestion per se does not have an effect on the technical quality of the service. There is no change to the quality of service dependent on the Congestion.
4. In the circumstances, the continuation of any enforcement action against those using enhancers even if the only grounds referred to so far in such matters are related to undue or harmful interference, seems to CellAntenna, prima facie unlawful on the part of any enforcement body. Moreover, significant questions have to be raised over the actions taken in respect of apparatus in the last few years, particularly where apparatus have been seized using powers in the Wireless Telegraphy Acts that apply only to apparatus emitting harmful interference.

In short, CellAntenna does not believe that use of apparatus CE marked enhancers is unlawful unless the apparatus is emitting signals on unwanted frequencies which then cause problems to signals being carried on permitted mobile telephony frequencies.

If CellAntenna is correct in its view, then it would also follow that under the R&TTE Directive and its incorporation to UK law in the Radio Equipment & Telecommunications etc. Regulations 2000 and in particular Regulation 7, there is a right to connect that apparatus to that of the mobile network operators in the United Kingdom.

Call for input-specific questions

In this section we set out specific comments concerning the areas set out in paragraph 1.19 of the Consultation document.

- **Consumer Demand:** CellAntenna believes that the demand for enhanced indoor coverage is extremely considerable. It looks at information from three continents and can see continuing and steady demand. It can also see a degree of consumer demand from the owners of office blocks, hotels and apartments trying to improve coverage in specific areas most often caused by physical characteristics of the buildings concerned but often also generated by there being areas of increased use because they involve substantial public areas (such as universities) which have large concentrations of mobile services-using consumers. Given that particularly with

newer technologies mobile network operators holding exclusive transceiver licenses are having to "double up" and provide joint networks because of what they claim are the costs of providing significant coverage, it would appear that it is unlikely that those holding mobile network operator licenses are likely to completely fulfill demand across their networks through the use of enhanced network provision. The use of self-provided enhancers enables end users to fill blackspots and make better use of networks.

- **Operation:** congestion is likely on any system where the network does not provide sufficient capacity to fulfill demand. Congestion as a feature is allowed for and provided for in the ETSI standards in relation to, for example, 2G, 3G and 4G. Clearly, apparatus in its operation needs to comply with emissions and other rules and regulations that permit a CE mark to be affixed to the equipment. The apparatus also needs to operate in accordance with ETSI standards where applicable to the apparatus. The apparatus should be such that it qualifies for the right to be attached to a mobile network. The apparatus should not emit harmful interference as defined in the *Recall* case. Indeed, any exempting regulations should, as with present exempting regulations like the Wireless Telegraphy (Exemption) Regulations 2003 contain a provision (in the aforementioned Regulations in Regulation 5) specifically prohibiting the exempted apparatus from causing undue interference.
- **Technology evolution:** CellAntenna believes that the operation of an open market in enhancers will lead to development of further enhancers which are technology and spectrum neutral. Enhancers do not have to be specific to a particular network because the problems leading to the necessity of using enhancers are not specific to a particular network being most usually caused by access to system difficulties with which result from the physical characteristics of a building or locality. Also, in days when there is increasing roaming including between the systems in the same country there is something to be said for technology being commercially and practically neutral in its operation. This was the challenge in the USA when the FCC met with manufacturers of boosters and the cellular providers. They came up with innovations to boosters to meet concerns. Some of the innovations include oscillation control, and limits on uplink power to the towers. As well, the FCC provided a method where consumers can register their FCC Licenced boosters into a nation wide data base. This allows the carriers to locate quickly any booster that may have a problem. With the new changes to boosters and the registration, this has proven to be successful. We suggest that the MNOs be permitted to administer a voluntary registration scheme if they wish.
- **Consumer utility and benefits:** the problems that are solved by using enhancers are often immediate in their effect and immediate in their solution. There is no reason why an organisation like Ofcom, in accordance with its general duties and powers, should do other than let the market deal with these "holes" in coverage. Although CellAntenna would not suggest that MNO picocells or femtocells should be prohibited, it believes that permitting the public and/or operators of resources, buildings or facilities to have the ability themselves in the circumstances to purchase and install the appropriate equipment without the need for further licensing is what

is required. This is the projected effect of the authorisation directive provisions that lead to the way in which Section 8 of the Wireless Telegraphy Act 2006 is drafted.

- **Impact on networks and mobile users:** given that as is said above it seems unlawful to make the provision of enhancers subject to specific licence requirements unless they involve the factors set out in Section 8(5) of the Wireless Telegraphy Act 2003 then when looking at this area, one is restricted to looking at the potentially four pertinent factors as set out in paragraph 1.15 of the Consultation document. We dealt extensively above with harmful interference and don't think that "endangering life" is involved. So the two pertinent factors are having an adverse effect on the technical quality of the service and there being an effect leading to inefficient use of a part of the electromagnetic spectrum available for wireless telegraphy. The *Recall* case quoted above also looked at the question of inefficient use of the spectrum. Given that the use here is in accordance with ETSI's standard it cannot be said to be inefficient use because the way in which the spectrum is used is governed by the way in which the standards protocols work. We say above because the passing of signals through the enhancers is simply neutral transportation then it is unlikely to have any significant effect on the technical quality of the service as opposed to its availability.
- **Spectrum management impacts:** once again, enhancer technology because of the apparatus it consists of is unlikely to affect other apparatus involved in MINO. CellAntenna does not believe that enhancers would significantly adversely affect the introduction of macro enhancement techniques.
- **International developments:** CellAntenna has experience, as we say above, across a number of continents. The company was involved convincing the FCC that such technology should be permitted in the United States and operates technology permitting the enhancing of signals in a number of countries.

CellAntenna's operational experience has been that issues should be dealt with on a country by country basis. It is not believed that of coordination at a European level is required given that there is already a duty on countries in the EU to exempt these pieces of apparatus from specific licensing requirements. A degree of coordination and an examination by, say, Berec to ensure uniformity of application of the appropriate rules might be of assistance but developing some European standard is not necessary and indeed might act against the legal duties that already exist.

CellAntenna believes that the only test that needs essentially to be applied in relation to enhancers is whether or not they should be exempt from the need of specific licence because they fall within conditions set out in Section 8(5) of the Wireless Telegraphy Act 2006. So long as the apparatus is:

- not causing harmful interference;
- not adversely affecting the technical provision of service; and
- leading to an inefficient use of the spectrum

it is difficult to see how other tests or hypotheses need to be applied to it.

In the opinion of CellAntenna, Ofcom is obliged by law to issue exemption regulations in respect of enhancers and should do so as soon as possible.