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To: Mrs. Sallyanne Miller
Technology Sectors Unit
Radiocommunications Agency
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Wyndham House
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Use of Licence-Exempt Spectrum For Provision of Public Telecommunication Services

Dear Sallyanne Miller,
Ensemble Communications UK extend their thanks for the opportunity to respond to the questions in this consultation document.

Ensemble Communications UK is the centre of European activity for Ensemble Communications Inc. based in San Diego CA. The company is focused on the manufacture of broadband Fixed Wireless Access (BFWA) equipment that is designed for use in appropriate Fixed Service frequency bands by licensed operators throughout the world. Therefore whilst the company has only limited experience of operation in licence-exempt spectrum and the appropriate technology, we do have a view regarding proposals to allow commercial telecommunications services in these bands in the UK and no doubt subsequently more formally across Europe.

Generally Ensemble Communications welcomes any opportunity that increases the ability of “end-users” to gain access to high quality telecommunications services for the mutual benefit of those users and the telecommunications industry. Innovation in terms of how that access is achieved and the services delivered are essential to allow this industry as a supplier and others as users to flourish. Therefore it seems quite right that this opportunity through use of the licence-exempt spectrum is examined.

However Ensemble Communications has some concerns regarding the potential impact on licensed fixed wireless access activity which is reflected in our responses to the specific questions raised in the consultation document.

Ensemble Communications strongly believes that, so as not to compromise the integrity and take up of licensed fixed wireless access services, appropriate demarcation between FWA services operating in licensed frequency bands and



services that could operate in licence exempt frequency bands is developed and publicised as a matter of urgency.

This point is important to Ensemble Communications and possibly for the FWA industry as a whole since we are acutely aware of the current fragility of the telecommunications industry. Confusion exists amongst operators and users regarding the differing technologies available and their positioning within the context of broadband access services. The industry is currently extremely cost sensitive on a number of fronts, including equipment, deployment and licence cost with the drive to minimise “up-front” investment a key consideration in many roll out plans. It is vital for the benefit of users, industry and government objectives, that timely and informed decisions are made possible regarding technological choices by potential BFWA operators.

Please find attached our specific responses to a number of the questions raised in the consultation document.

Please do not hesitate to make contact if further clarification is required.

Yours Sincerely,

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Ensemble Communications responses:

Q1: What are the potential gains and benefits to the UK of allowing commercial services in licence-exempt bands, in terms of new innovative services (business models), promoting competition, and making Britain the best place to do e-business?

Response: For all BFWA operators the connection to final customers can be an issue especially within buildings and building complexes. If an operator having access to licence exempt spectrum at frequencies suitable for indoor use and with the minimum of delay increases the accessibility to other services then this should be encouraged. However Ensemble Communications (as a manufacturer of high grade fixed wireless access equipment) has some concerns that this access should not impact the integrity of the core services supplied over licensed networks. With this in mind, perhaps Scenario 2 (even without the indoor restriction) could provide the appropriate safeguards whilst maintaining the freedom for private users. With some minimal control, access to this licence-exempt spectrum could provide a means to complement and enhance a BFWA operator's market access and increase the connection opportunity for the customers without degradation of service.

Q2: Will the introduction of public telecommunication services into existing licence-exempt frequency bands, within the conditions of use identified in Appendix B, result in unacceptable levels of interference to existing users, and if so, in what geographic locations might this be expected?

Q3: Would the introduction of public telecommunication services, into existing licence -exempt allocations, and within the current conditions of use identified in Appendix B, result in congestion of the frequency bands?

Q4: In bands where channel access techniques have been identified for specific services, will these techniques be sufficient to avoid future congestion? If not, please give information about other techniques that might be applicable.

Response to Q2 to Q4: Ensemble Communications can offer no specific view on the levels of interference or congestion that might occur. However we would express the need for a cautious approach and proper studies to ensure the integrity of any "licensed services" that might ultimately be transported in these frequency bands.

Q5: What type of public telecommunication services could be offered in licence-exempt spectrum and what is the anticipated market potential?

Response: As a manufacturer involved in the development of the BFWA market and as stated in Q1, we consider there is the potential for access to licence-exempt spectrum to complement spectrum available to a licensed BFWA operator. Therefore the services could be similar to those currently supplied via BFWA systems. These include all forms of

data services ranging from low capacity speech services through to high speed access to the Internet. Currently BFWA systems can facilitate connection speeds far in excess of wired DSL systems currently available (on a limited basis). Clearly a means of increasing the accessibility could improve the availability of these services to those currently denied connection via wireline or cable networks.

Q6: Assuming that there would be a lower quality of service available from public telecommunication services using licence-exempt spectrum, compared to those using licensed spectrum, how could potential end users be informed of this?

Response: Care should be taken that any “quality of service” issues are not perceived by operators or end-users in a way that could degrade the reputation of wireless systems as an appropriate means of telecommunication service delivery. This is especially true if used to support fixed networks where the grade of service is generally high and controlled in a manner consistent with the service being supplied. See associated response to Q.8.

Q7: Which, if any, frequency bands identified in Appendix B are not suitable for the introduction of public telecommunication services and why?

Response: To support the view that licence exempt operation could complement BFWA then unsuitable frequency bands might be those with limited bandwidth. Ensemble Communications has not carried out any specific analysis, but based on our BFWA planning expertise, it would seem logical that to support a number of operators then bands that are at least 100MHz wide should be considered as potentially most useful.

Q8: Are there any potential problems associated with allowing commercial services in licence-exempt spectrum?

Response: It is Ensemble Communications’ view that any access to licence-exempt spectrum should be promoted as being complementary to licensed Fixed Wireless Access (or any other licensed service) and not as a substitute.

Identification of this licence exempt activity as “FWA” has the potential to cause confusion amongst potential operators which may result in delays to the take up of existing FWA licences and roll out. This would be detrimental to the Government’s objectives regarding wider access to broadband services.

Additionally, any resulting regulatory regime should be promoted on a European basis to avoid a UK specific solution.

No response given to Q9.