

Kingston Communications (Hull) plc response to the Consultation Document "Use of Licence-Exempt Spectrum For Provision of Public Telecommunication Services".

Kingston Communications (KC) thanks the RadioCommunications Agency (RA) for the opportunity to provide a response to the Consultation Document "**Use of Licence-Exempt Spectrum For Provision of Public Telecommunication Services**". We recognise the importance of the establishment of a robust and practical regime with both licencing and technical issues appropriate to meet the building demand for use of the licence exempt frequency bands.

KC is well placed to comment on the use of the licence exempt spectrum as it has had service provision at 2.4GHz under frequent review in East Yorkshire since successful application for an East Yorkshire 2.4GHz licence in late 1999. To date no compelling service and equipment solution has been identified for roll out, and trials have been limited. Our caution in this matter, notwithstanding our intent at the time of application, has been based on the fundamental difficulty of establishing a service vulnerable to legitimate interference, because of increased band use. Further, the services we have considered have all been of the point to multi-point nature, and needed significant numbers of subscribers to make them commercially viable. We have recently concluded that the sweet spot for use of this spectrum is the use of it for short term, emergency service provision on a restricted range basis that overcomes problems associated with conventionally cabled service. Under these circumstances there is no effective practical alternative and the service duration will be for a short period only: the risk of interference is at an acceptable level if deployment is restricted thus. We do not see why other Operators should not be also able to use licence exempt spectrum for temporary service also. KC would be prepared to adhere to some form of notification and restricted duration scheme and would be happy to discuss this further with the RA.

The consultation covers a number of licence exempt frequency bands. Of particular relevance to KC and this response document are the following bands:

Application	Comment	Frequencies
Digital Cordless Telephones	DECT	1880 - 1900 MHz
RLANs	2400 MHz	2400 to 2487.5 MHz
HIPERLANs	5 GHz	5.150-5.350 GHz, 5.470-5.725 GHz and 5.725-5.875 GHz.

Kingston believes that Telecommunications Operators should have the flexibility to offer a Radio interface to CPE as part of a service offering. At this stage it is possible to identify all RLAN approved specifications, BlueTooth and DECT as candidate technologies. We believe that subject to standard declaration of the interface, as with any service, Operators should be free to use these for the purpose of "indoor" final service delivery. We believe that Operator use of licence exempt "indoor applications" is not controversial and should be allowable and we question the even the need for a "light licencing regime" as expressed in Scenario 2. In this application, neither Regulatory Scenario 1, nor 3, appears applicable.

KC would like to see that the current clarity is maintained: either a service provider is operating as a Telecommunications Operator and may charge for such services, or the systems are being operated under the private Class Licence, under which no commercial third party service may be provided. We do not see that it is appropriate for the RA to enable or encourage an intermediate class of service provider who may wish to provide a commercial service but who is not prepared to also hold a Telecommunications Operator Licence from the DTI.

It is clear that the RA recognises that certain commercial services face almost insurmountable commercial barriers without access being available to commercial operators to the un-

licenced bands. These are the Radio Access point services that are developing to make use of 802.11 or Hyperlan specifications.

This raises the "indoor or outdoor" question and the specific frequency and power regimes. These 2 issues can be further subdivided by frequency band, and the UK 5GAG has made technical proposals for that specific band that offer pointers to use or Indoor power levels and external power levels could be managed in different parts of the band. We would wish to encourage the RA to establish clear ground rules, notwithstanding that private users will be exempt and control of the way their equipment is used will be difficult to either establish or police. This is the first step to establishing an "Indoor" and "Outdoor" regime.

This suggests that the RA should set up a Regulatory Scenario that combines BOTH Scenarios 1 and 2. A Telecommunications Operator should have to apply for a Licence to establish permanent service and each base station (both indoor and outdoor) should be registered by type and location. This would enable the RA to both establish a compliance regime for an Operator and also track the deployment. We do not believe that the "Landlord Policing" identified by Masons will meet all cases and the RA should give thought to restricting Operators to a subset of channel sets where technology specifications allow this. This would enable some room for accommodation between Operators on closely adjacent sites who have chosen the same technology.

We do not believe that the 2.4GHz band is the correct frequency band for outdoor point to multi-point commercial RLAN services, though indoor use should not be precluded. The 5GHz spectrum lends itself to being split to accommodate outdoor use.

The simple summary of this position is:

Frequency Band	TO Use	Comment
1880 - 1900 MHz	Network interface	Indoor only
2400 to 2487.5 MHz	Network Interface and RLAN service. Emergency link	Internal only External limited duration
5.150-5.350 GHz, 5.470-5.725 GHz and 5.725-5.875 GHz.	Network Interface RLAN service.	Internal Internal and External
Note: The designation "Indoor" cannot exclude some signal from a base station in a building being received in the vicinity of the installation. It does however designate a limited power device, designed specifically for short range application.		

In considering the question set as posed, we have the following comment:

- Spectrum demand will only exceed the capacity in relatively limited geographical areas.
- We believe that the contract for services supplied in licence-exempt spectrum must reflect the potentially lower degree of availability and service quality that does differentiate service from that of service supplied over conventional (protected spectrum) radio or cabled services. This is not seen as a particular barrier, however, as the services will address an appropriate market, at an appropriate tariff, or be unsuccessful.

KC would be happy to enter into a fuller discussion with the RA on any of the points raised above.