

Silver Spring Networks (UK) Ltd response to RSPG draft opinion on licensed shared access

Silver Spring Networks (SSN) welcomes the opportunity to respond to RSPG's draft response to the Commission's Request for an Opinion on spectrum regulatory and economic aspects of Licensed Shared Access. We also welcome the broad thrust of the document and believe that Licensed Shared Access (LSA) offers society an important opportunity to maximise the utility of a limited, valuable natural resource: radio spectrum.

LSA, in effect, lies somewhere between the concept of licence-exempt collective use and secondary trading, and could tap many of the benefits of both approaches. The release of spectrum in the form of LSA could increase the use of some spectrum many fold, and for this reason alone this approach should be aggressively pursued.

National administrations have ambitious plans to release spectrum to commercial users from governmental organisations, and LSA offers an additional way in which additional capacity can be released and additional value squeezed out of spectrum. SSN believes that many such opportunities exist, both for Governmental-commercial and commercial-commercial agreements.

The release of additional spectrum will encourage innovation, but the availability of mechanisms to share spectrum will, in of itself, also create technical solutions, the net result of which will increase the benefit of spectrum and offer companies in the EU to lead the world towards the development of these new technologies.

RSPG would be well advised to draw from the body of work development by regulators and manufacturers in Europe Short Range Device (SRD) community, notably CEPT SE24 and ETSI TG 28, where many of the technical problems that may be faced have already been addressed. Recent work culminating in ECC Report 181 sets out principles for sharing between different types of system without specifying individual applications.

The legislative framework that is available across European countries appears to be adaptable to many of the principles set out in the draft response, but SSN cannot claim to be legal experts in this area.

RSPG is an appropriate level to encourage the development and adoption of LSA, pushing down advice and learnings into national administrations.

SSN agrees that, initially, Government spectrum will form the best candidates for 'proving the concept' of this approach and is probably the least legally risky of the set of candidates. Inevitably, NRAs – in tandem with standards organisations - will need to be closely involved with the specification and development of technical parameters for sharing. We believe, however, that in the fullness of time, opportunities will arise for sharing between commercial organisations, and in deed, agreements between users would be a better way of identifying opportunities – in frequency, space and even time. But legislation would need to ensure that such agreements are transparent and do not fall foul of competition legislation. In future, it may be possible to allocate spectrum to two or more parties at the same time, at which point the concept of the 'incumbent' would need to be modified.

The roll out of the concept of LSA needs to be carefully managed to make sure that the LSA 'brand' is not damaged. Trial arrangements could be tested in one or more countries, initially with Government spectrum. PMR would be an ideal trial to demonstrate the process and implementation before moving on to trickier technical sharing challenges.

Recent work within CEPT SE24 has demonstrated how technologies can successfully co-exist with GSM-R (ostensibly the extended band, but the principles could be extended to the core bands). This would be an ideal candidate, being quasi-governmental and having relatively limited geographical footprint.

The biggest challenge, more generally, will be defining suitable technical conditions for sharing. For Government spectrum, NRAs will need to be involved in the detail, and technical parameters will need to be conservative, initially. Later, more aggressive and perhaps laissez-faire-developed approaches can be adopted. These might be bi- and even tri-lateral agreements, and the market should be allowed to decide - as long as technical restrictions do not allow next neighbours to be inconvenienced.

The right balance needs to be struck between government/institutional intervention and individual agreements. The visibility of individual arrangements will need to be maintained, with Governments having the right to veto proposals in case balanced operational conditions are threatened. Aspects that may need to be given consideration include the duration of agreements and the rights for licences to be transferred.

The UK has already examined some of these aspects by considering the concept of Spectrum Usage Rights (SURs). Ultimately, this failed because the approach was too aggressive, and so lessons need to be drawn.

Later, it may be appropriate to allow, potential sharers rights to approach existing users – particularly government users – and make proposals for sharing. Finally, commercial users should be made legally obliged to consider sharing offers.

Simon Dunkley, 2nd September 2013