

BandSharing Forum (BSF) Response to the Ofcom consultation sfr:ps

The BandSharing Forum is a non-profit organisation with very strong private and public-sector relationships. It takes a technology neutral approach to allow publicly-visible trials to take place and to establish a new testing ground for new technologies and public-sector policies.

Context of this response

The BSF welcomes Ofcom's first consultation on the management of public sector spectrum since the original Cave Audit 'Emerging Issues' document published during the mid-audit period in 2005.

The BSF regards this document as a landmark as it moves the topic ahead of the other process competing for public sector and industry attention, namely Next Generation Networks. It is noted that bandsharing with the public sector is now regarded as a 'done deal' contrasting starkly with the calls for leadership and funding coming from all areas of NGN. The contrast is even more marked when considering that the economic impact of bandsharing is potentially more significant than that which would be achieved by successful implementation of NGN.

One question being considered by the BSF is whether this consultation is required at all. The implementation of RSA is a technical issue that will be determined by the science of bandsharing and the results of trials. The draft guidelines for such trials have been available through the PSSTG for many months and BSF members are conducting preliminary field trials already.

AIP

We understand that AIP is to be dealt with in a later separate consultation. This is surely an issue for HM Treasury and their client departments and based on policies already decided in the Comprehensive Spending Review (CSR). Once again this emphasises the earlier contention that bandsharing is a 'done deal' compared with NGN and further consultation is not required.

Spectrum Release and Technology Neutrality

From our selective questioning of potential spectrum sharers and a thorough trawl of the Ofcom/RA Spectrum Efficiency Scheme (SES) reports it is fair to conclude that trading in a spectrum market is/would be the most popular spectrum release mechanism. Our concern is that early movers would be subsequently swamped once the huge value of the public sector bands became apparent.

The freedom to trade in a technology neutral market constrained only by the safety case requirements and mitigation costs of each technology would be moderated by an early mover protection requirement. Frankly there is enough evidence in the SES archive to show that multiple sharing schemes allow geographically defined, small scale systems to co-exist with national networks should the situation arise.

To aid understanding by those new to the concept of trading in safety mitigated bands a series of our presentation slides has been attached at the Annex. It uses the example of releasing the 2.7 – 3.4 GHz radar bands as compared with releasing the world's oil reserves. While there are many subtleties it cannot show it does give a flavour of how moving outwards across bands prevents spectrum values ever becoming unbearably high.

Finally Ofcom continues to appear schizophrenic in front of its spectrum stakeholders by preparing spectrum release schedules, designing release mechanisms and estimating prices for spectrum without taking into account the newly shared bands. The idea that the UK can have a position on identifying bands for UMTS at WRC 2007 Agenda item 1.4 without taking into account the SFR:PS implications is not acceptable. It may be that a Forum based around bandsharing is similarly biased towards its own view of spectrum management but surely the successful Ofcom trials show that the way ahead for all spectrum is not re-farming but sharing using technology.

Next Steps

There is a simple route to implementing spectrum management in the public sector bands. It involves:

- Industry demonstrating a credible demand for sharing in a particular band,
- Mitigation costs being estimated by the public sector band manager in an independently audited technical assessment,
- The RSA of the crown user and the SUR requested by the incomer being established at the commercial operators cost.
- A suitable trading regime being legally agreed between the public sector band manager and the incoming commercial service,
- Technical implementation costs falling on the incomer.

The back of the Cave Audit report contains an algorithm on the valuation of AIP for public sector bands based on alternative use. This is quite adequate for the incoming user to estimate commercial demand. The PSSTG is gradually overcoming the cultural issues of the cold war and implementing a suitable public test plan for bandsharing. Industry is responding cautiously as the slow about turn of the non-Ofcom spectrum regulators takes place but is ready with large investment once the level of commitment has been demonstrated.

Methodologies for estimating, modelling and validating SUR/RSA have been developed by the BSF and are ready to be implemented. This is progressing faster than the Ofcom move to introduce such systems (SUR) in their legacy spectrum.

It is the contention of the BSF that the legal mechanisms for implementing all of the above already exist in the WT Act and that the process can proceed as soon as the public sector, particularly MOD, have appointed a credible independent third party band manager as recommended by Cave.

Specific Questions

Question 1: do you agree with Ofcom's proposed overall approach to improving the management of public sector spectrum holdings and, in particular, with Ofcom's conclusion that it will generally be preferable for public sector bodies to interact directly with the market?

Answer 1: Yes, Ofcom has our full support with its approach. Speed of implementation is the more important issue now.

Question 2: what factors do you consider Ofcom should take into account in determining the programme of reform in the framework for managing public sector spectrum holdings?

Answer 2: Ofcom should consider that the following activities are proceeding in parallel and ensure all factors arising must be incorporated going forward:

- MOD demand study
- WRC2007 Agenda Item 1.4
- Radar Protection Criteria Study
- Industry requests for pioneer licenses that can offset the costs of trials
- Military bandsharing trials results from Exercise Neptune Warrior April 07.
- Industry work on a technology neutral, SUR based trading system
- The consensus between all potential users that a system is required to protect early movers in return for their pioneering work on safety cases and trials.

Question 3: do you consider that the proposals should be phased in?

Answer 3: The RSA aspects should be implemented immediately when trials data is available. The phasing in of the AIP rules is a matter for Ofcom, HM Treasury and client departments and does not require an answer via a consultation.

Question 4: Do you agree with Ofcom's proposals about the frequency bands that offer the greatest potential benefits from band sharing? Are there other frequency bands where the facility to trade or lease spectrum from public sector bodies would be particularly attractive?

Answer 4: The BSF would strongly urge the regulators to consider the radar band at 1.4 GHz as a high priority band. The previous trials work at 2.7 – 3.4 GHz could read across quickly via the radar protection criteria study and potential sharers have already been identified.

Question 5: do you agree with Ofcom's proposed approach to awarding public sector licences and RSA?

Answer 5: The Ofcom process is in danger of being too slow. If further deliberation is required then a miscellaneous license class capable of bridging the gap between Test and Development and the new public sector regime is required.

Question 6: should public sector spectrum trading be introduced at this stage in the Channel Islands and Isle of Man?

Answer 6: The Cave Audit evidence suggested that boundary conditions would require further study. This should be left until more technical evidence of cross border technical effects has been examined via trials.

Question 7: should there be additional grounds, eg safety-related, for Ofcom to refuse consent to a proposed trade in certain frequency bands or for certain applications?

Answer 7: The Cave Audit concluded with a specific intention for the presumption of sharing. Only on the basis of unsatisfactory trials results should sharing be refused. At the recommendation of the PSSTG, more trials can be specified until safe sharing has been demonstrated and a safety case made. The BSF fully support this situation.