

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title: Glasgow 2014 Commonwealth Games Radio spectrum planning

To (Ofcom contact):

Name of respondent: Mark Dennis

Representing (self or organisation/s): SVGTV Host Broadcaster Service

Address (if not received by email):

CONFIDENTIALITY

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

Nothing	<input checked="" type="checkbox"/>	Name/contact details/job title	<input type="checkbox"/>
Whole response	<input type="checkbox"/>	Organisation	<input type="checkbox"/>
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Name Mark Dennis

Signed (if hard copy)

SVGTV HOST BROADCASTER SERVICES RESPONSE TO OFCOM CONSULTATION DOCUMENT

Q 1. Do you agree that the most relevant comparator for a top-down approach is likely to be the London 2012 Games?

SVGTV agrees the London 2012 is the most relevant comparator for CG2014. However it is also appreciated that the spectrum demand will be significantly less than London 2012.

Q 2. Do you agree that comparing data for the number of radio channels used for specific services at different events is an appropriate approach to estimating spectrum demand? If you disagree, please explain your reasoning.

SVGTV agree with this approach as a good starting point for specific services at different events, again baring in mind the reduced scale compared to London 2012.

Q 3. To what extent do you think we should place more emphasis on estimating demand from information provided by stakeholders rather than on the limited data available from past events of a similar scale?

As SVGTV will be the major stakeholder for the spectrum for CG2014 we are happy to estimate our demand for HB services at this stage. We also agree that asking other spectrum stakeholders to estimate there demand would be a useful exercise.

Q4. Is there any other relevant technical guidance that we should be taking into account in order to validate our assumptions and our estimate of spectrum demand?

The London 2012 Olympic and Paralympics reports should certainly be taken into account.

Q5. Do you have any comments on how relying on wired communications could be used to reduce spectrum demand at Glasgow 2014?

SVGTV will endeavour to use wired communication wherever practical due to increased resilience, cost saving and reduced demand on the available spectrum. However we will still have a strong reliance on wireless communication at most if not all venues/events.

Q6. Do you have any comments on the scope for maximising supply by reusing spectrum efficiently?

SVGTV will endeavour to plan our spectrum planning to achieve maximum and efficient use of the available spectrum with good planning and best practice use of RF TX equipment.

Q 7. Do you have any comments on the scope for maximising supply by using higher-frequency spectrum?

SVGTV is currently in running the RF Tender Process for CG2014. As part of this tender we have asked and encouraged RF Facility providers to look at the 7GHz range and included in their tender responses what their current and future plans are for use of equipment in the HF spectrum.

We are aware of potential future reductions on the 2 & 3 GHz spectrum and so are actively looking at how we can utilise the 7GHz spectrum for CG2014.

However, UK & European Suppliers are still mostly in the 2G & 3G Band. Offering 5G & 7G will make equipment supply hard, and as a function of COFDM a reduced performance.

Q8. Would you consider using free-space optics technologies?

FSO technology is not widely used yet within the Broadcast Industry and so there is limited suitable hardware available at this stage. However it is not a technology we would dismiss out of hand and should suitable opportunities arise we would look towards FSO as a suitable solution

Q9. Do you have any comments on our planning assumptions?

- A. SVGTV would turn to the OC to comment on this figure
- B. As answered in Q5 we would use wired technology wherever practical.
- C. SVGTV spectrum requirements would typically start about a month out from the Games. We would also need spectrum access during Test Events and RF Tests over the next two years.
- D. SVGTV is happy with statement
- E. SVGTV agree that RHB will import some RF equipment from their own country
- F. SVGTV would expect all modern equipment to be re-tuneable and expect all RHB to have the necessary equipment and training to do so on-site where practical. It would also be expected that equipment with multiple channels (i.e Portable Radios) turn-off all channels that they do not have a licence for.
- G. As mentioned in Q6 SVGTV will use Best Practice procedures when planning and setting up our RF equipment.
- H. SVGTV are happy the bandwidth do not need to increase. The only higher bandwidth we may request is for multiplexing feeds.
- I. SVGTV will endeavour to ensure all our RF equipment will meet ETSI standards. We cannot guarantee equipment sources from abroad will meet UK standards.
- J. SVGTV will provide live and recorded video feeds from all sporting events.
- K. All SVGTV WF signals will be HD.

L. SVGTV may move Wireless Cameras between venues to maximise use out all our HB kit

M. SVGTV would prefer the 2Ghz (low band 2.0 > 2.3) and would expect to filter 2.1Ghz . As there are BAU channels within that range high band 2Ghz is an option but 4G mobile services may exclude this. 3Ghz is also a preferred band. When the Suppliers Contracts are in place on the balance of 2Ghz & 3Ghz can be finalised. (ie: 2Ghz ground>air, 3Ghz air>ground

N. SVGTV understands the problems associated with the amount of spectrum required and the amount ultimately available, and believes with careful planning and operation adjacent (or near adjacent) channels working is possible.

O. SVGTV would work with OFCOM with the coordination of spectrum requirements for broadcasting

P. Suppliers offering Multiple Rx sites will be favoured as SVGTV believes this is the only way to guarantee, on the more complex location at least, seamless coverage. It also may offer lower EIRPs from the Tx for the same level of service, thereby allowing more frequency re-use around the various Venues. (For instance, it is common in TV Studios to run 2Ghz 8Mhz DVB-T slots for radio-cam use at 10mW).

Q. SVGTV would expect some RHB to have UNI facilities on-site and either through HB Rate Card facilities or RHB SNGs transport their own feeds back to the IBC

R. SVGTV would expect Optical Fibre to to be used at some if not all venues

S. SVGTV has not yet planned out RTB to this detail. We would however use CTCSS/DCS technology where possible.

T. SVGTV would expect to have a managed satellite farm at the IBC

U. SVGTV would expect some RHB use satellite links to feed UNI feeds from venues to the IBC

V. SVGTV envisage news crews will use satellite delivery during CG2014

W. SVGTV would envisage in most cases Test Events would have a lower spectrum requirement.

X. SVGTV understand that short licenses can be issued. This would be taken into account when planning the HB spectrum requirements.

Y. SVGTV agree that the our spectrum plan will be subject to change during the run-up to the games.

Q10. How would you prefer to receive PMR/PBR services?

SVGTV as the HB would keep our PMR services to the absolute minimum at each venue. Each venue would manage their own PMR network.

Q11. Would you be willing to use CTCSS tones/DCS codes to allow the same channel to be used for PMR/PBR?

SVGTV would look into using CTCSS tones/DCS Codes as an option for PMR services.

Q12. Do you have any comments on our assessment and proposals for wireless microphones and IEMs?

SVGTV as HB will have some use at each venue for wireless microphones and IEMs. We will also have roving ENG/NEWS crews with wireless microphones, we would look into the possibility of having a range of frequencies that can be used at all venues for roving HB crews.

RHB News crews will also no doubt have the same demands.

Q13. Do you have any comments on our assessment and proposals for talkback?

SVGTV will have wireless talkback at every venue, but as covered in Q10 we will keep our requirements to the bare minimum.

Radio Talkback will also be in use by other groups at each venue (i.e Security, Venue Management and Sports Management) and all our requirements will need to be addressed.

Q 14. Do you have any comments on ADS?

SVGTV as HB does not expect to have any ADS requirements

Q15. Which bands would you prefer to use for wireless cameras?

SVGTV as mentioned before would prefer to use the 2-3GHz spectrum due to ready availability of equipment and suitability of this range for broadcast requirements. We will endeavour however to use the 5GHz and 7Ghz spectrum as well where possible.

Q16. Which bands would you be willing to use for wireless cameras if you cannot use your preferred bands?

See Q15

Q17. Do you have any other comments on our assessment and proposals for wireless cameras?

As mentioned in Q7 UK & European Suppliers are still mostly in the 2G & 3G Band. Offering 5G & 7G will make equipment supply hard, and as a function of COFDM a reduced performance.

Q18. Which bands would you prefer to use for point-to-point links?

SVGTV may use Point-to-Point links for Beauty camera feeds, Back Up feeds and City Wide events, we can be flexible with the frequency allocation for these services.

Q 19. Which bands would you be willing to use for point-to-point links if you cannot use your preferred bands?

SVGTV can be flexible with Point-to-Point frequencies should the need arise to use them.

Q20. Do you have any other comments on our assessment and proposals for point-to-point links?

We would be happy to use the 5 to 10Ghz range for Point-to-Point links as you suggest.

Q21. Do you have any comments on our assessment and proposals for FSS?

SVGTV envisages to have a FSS at the IBC. This will be used by the HB to receive feeds for venues as backup to Fibre circuits. RHBs will also have a presence in our FSS 'Satellite Farm'

Q22. Do you have any comments on our assessment for Mobile Satellite Services (MSS)?

SVGTV as this stage do not have a requirement for MSS.

Q23. Do you have any comments on our assessment for Radio navigation Satellite Services (RNSS)?

SVGTV agrees with the proposal to ask the UK Government to cease jamming trials during the period of the Glasgow 2014 Games. We will rely heavily on GPS signals for most of the large city wide events.

Q24. Do you have any comments on our assessment and proposals for telemetry and telecommand?

SVGTV will require spectrum for telemetry and telecommand control of all our RF cameras. We would look to secure some spectrum for our use only in the license exempt bands listed.

Q25. Do you have any comments on our assessment and proposals for WLANs?

SVGTV will rely on WLANs across the games. For London2012 there use was restricted at venues and managed by OFCOM and similar setup may be appropriate for Glasgow 2014.

Q26. Do you agree that licensing arrangements for users covered by the spectrum guarantees should not be subject to a special regime as we have for the London 2012 Games?

SVGTV agrees a monitoring scheme will be required during the Glasgow 2014 Games and a 'testing and tagging' scheme should be employed.

Q27. How can efficient sharing and co-ordination between Games and non-Games spectrum use best be achieved?

SVGTV agrees with your proposals listed under A5.3.

Q28. Do you have any other comments on how best to license spectrum use for Glasgow 2014?

SVGTV have no specific comments but are very happy to assist in the planning on how to best use the spectrum available.

Q29. How can interference management be most effective in ensuring the successful running of Glasgow 2014? Are there other measures we should consider implementing? To what extent is your response based on previous experience of similar events?

The spectrum planning worked very well during London 2012 and similar approach to Glasgow 2014 should stand us all in good stead. Starting the planning early will ensure any problems that arise can be dealt with in good time. A specific group to deal with the Broadcasters needs would be useful.

Q30. Do you have any comments on our approach to test events?

SVGTV would also take the opportunity at a Test Event to check spectrum planning and availability at the specific venue.