

**Sixth meeting of 4G/TV Co-
existence Oversight Board:**

**Meeting date: 11th Sept
2013**

**Chair's report to Ministers
and Ofcom**

Attendees

David Hendon, Chair

Kip Meek (EE)

Matthew Braovac (Vodafone)

Phil Sheppard (Three)

Alix Pryde (BBC)

Khalid Hayat (ITV)

John Ballard (Arqiva)

Simon Beresford-Wylie (DMSL)

Jane Humphreys (DCMS)

Mark Caines (Ofcom)

William Webb (Non-
Executive)

Roger Darlington (Non-
Executive)

Robert Burles (DCMS)

Maryam Hannan (DCMS)

Apologies

Peter Couch (Arqiva)

Kim Chua (Channel 4)

Alberto Fernandes (Ofcom)

Laurence Wardle (O2)

1. DMSL update

Roll-out

- 1.1 Two of at800's shareholders launched 4G services using the 800 MHz frequency band on 29th August. The number of interference cases remains low three months after the first base stations began radiating. Whilst DMSL have completed 600 installer visits, they have only found 47 cases of interference (in addition to the 35 cases found during the pilots). The 47 figure may contract when DMSL completes its quality audits on these cases.

1.2 It is possible that a number of cases of 4G interference are not being picked up by at800, as 25% of householders are fitting their free filter as soon as they receive it, despite at800's advice to the contrary. At800 have anecdotal evidence that the filter is resolving pre-existing reception issue by attenuating other interfering signals.

1.3 If the levels of interference continue at the current rate, at800 estimate that the number of cases will be materially lower than the 90,000 estimate on their website.

Contact Centre Volumes

1.4 At800 received 4012 calls last week, a 75% reduction on call volumes during their peak week in June when they handled 15,000 calls. The majority of last week's calls - 2883 - were about reception issues unrelated to 4G interference. At800 is looking at its staffing profile in the light of the reduction in its anticipated workload

Policy Sub-Group

1.5 I proposed to establish a Policy Sub-Group chaired by Roger Darlington, our Consumer Non-Executive, to reconsider the policy in the light of the much lower levels of expected interferences, and propose what KPIs would be appropriate if a changed policy approach were implemented. I asked the sub-group to plan to bring headline conclusions for discussion at the October Board meeting and said I hoped we could agree then whether a detailed proposal should be worked up for agreement at the November meeting.

1.6 The Board agreed my proposal but the following points were made during the discussion:

- That any changes to at800's operations should ensure that they retain the flexibility to respond to spikes in demand
- That implementation of the sub-group's proposals should be delayed until a larger number of base stations were active and the level of interference experienced had been confirmed
- That any changes to at800's operation should, so far as possible, maximise their chances of retaining key expertise throughout the life of the project
- That the new policy should be flexible enough to cope with changes in interference over the next few years

1.7 The Board noted that the none of the operators were yet operating in Block A closest to Digital Terrestrial Television, and that interference may increase once this begins. Simon Beresford-Wylie noted that the evidence from France, as here in the UK, is that interference is largely caused by the presence of amplifiers (circa 95%) rather than whether the mast is operating in Block A, B or C.

1.8 The membership of the Group will be:

- Roger Darlington (Chair)
- DMSL (Simon Beresford-Wylie, Neil Marley, Ben Roome and Reuben Braddock)
- Khalid Hayat (ITV)
- Michelle Brownrigg (Digital UK)

- Andrew Dumbreck (Technical Advisor to the Oversight Board)
- Robert Burles (Secretariat)

1.9 Simon Beresford-Wylie agreed to hold bilateral discussions with each of the at800 shareholders to ensure that their views are represented at the Sub-Group.

1.10 Once the Oversight Board has agreed on a changed approach, this would be presented to DCMS and Ofcom. It is anticipated that Ofcom would agree to forbear on enforcement against the old KPIs while changes were made to the mobile licences. Such changes would involve a formal procedure.

Filters

1.10 At800 have identified quality issues with some models of filters being supplied by some of their suppliers. They relate to compliance with the return loss specification, and in one instance being slightly outside of the insertion loss specification. It is unclear what the significance of these failures would be in practice. At800 have not had any issues with these filters in practice. They have sufficient filters from alternative manufacturers to carry out the programme as currently anticipated.

1.11 Nevertheless, at800 have quarantined the offending models, and are conducting a sampling and retesting exercise with the support of the Digital Television Group. The DTG's report is expected by the end of the week commencing 16th September.

2. KPI Report

2.1 At800 are taking a conservative approach to KPI reporting such that any case that might conceivably fall within a KPI is reported. All of the KPIs were passed for the July mast activations. For KPI2, the proportion of households requesting a filter in the four weeks following mast activation was less than 1% on average compared to the limit of 10%.

3. Technical sub-group

3.1 William confirmed that the group had not yet reached any final conclusions but were beginning to whittle down the potential reasons for the difference between the original Ofcom numbers and the actual interference.

3.2. There appeared to be two likely technical reasons. First, households have aerials which are just good enough and which are therefore less vulnerable to interference. This hypothesis is supported by an old Aegis study conducted for BERR/Ofcom that found an inverse correlation between signal strength and antenna gain. Two, in practice, the bursty nature of 4G LTE mobile signals appears to have less of an impact on Digital Terrestrial Television than previously expected on the basis of experimental testing.

3.3 In addition, there is evidence from the Digital Switchover programme that not all people who experience interference report it.

3.4 I noted that the UK Planning Model (UKPM) was designed to ensure good television reception and that therefore the assumptions within it tend, for obvious reasons, to be conservative. It may be that the UKPM dataset is not suitable for predicting interference levels.

4. Reminder Mailings

4.1 KPI1 originally required at800 to send households a postcard 4-12 weeks before a base station is activated. In May, the Oversight Board agreed a reduction in the minimum period from 4 weeks to 3 weeks, and a four week extension to the maximum period from 12 weeks to 16 weeks for the first phase of rollout. The purpose of extending the maximum period was to avoid households receiving multiple postcards if a mast is not activated within the 12 week window.

4.2 At this meeting, at800 sought a further eight week extension to the maximum period which would extend it to 24 weeks in total. The Oversight Board agreed to extend the maximum period to 24 weeks for London but only 20 weeks for places outside London, and to consider this again at this next meeting in October.

4.3 The Board asked the Policy Sub-Group to consider this issue but also at800 messaging more widely, including whether to conduct post-activation mailings.

5. Pre-Activation Research

5.1 Roger Darlington presented his paper on DMSL's pre-activation research. At800 have already picked up a

number of the suggestion that Roger made, including to conduct cognitive testing of their messaging. Roger's paper reinforced the need for the creation of the Policy Sub-Group to consider messaging to the public and the shape of the assistance scheme in the light of the low levels of actual 4G interference so far.

6. Research Proposal

6.1 The Board approved the use of its budget for a technical and consumer research proposal put together by Andrew Dumbreck (the Technical Advisor to the Board) and the Secretariat. The Board asked that the proposal be put out to tender quickly.

7. AOB & Next Meetings

7.1 Alix Pryde confirmed that her BBC alternate is Tom Everest.

7.2 The next meetings are scheduled for 9th October, 6th November and 5th December (all at Ofcom).

David Hendon

Chair

4G/TV Co-existence Oversight Board