

4G/TV Co-existence Oversight Board Meeting

Chair's report to Ministers and Ofcom

Meeting date: 17 March 2016

Attendees

David Hendon, Chair	Ben Roome (DMSL)
Paul Rosbotham (Vodafone)	Mark Caines (Ofcom)
Robin Vernon (O2)	Ian Dewhurst (DCMS)
Inge Hansen (EE)	Sue Ramroop (DCMS)
Greg Thompson (Three)	Michelle Brownrigg (DUK)
Alan Boyle (BBC)	Andrew Dumbreck (Technical Advisor)
Alexandra McNair (ITV)	<u>Apologies</u>
John Ballard (Arqiva)	Erol Hepsaydir (Three)
Roger Darlington (Non-Executive)	Philip Milton (Channel 4)
William Webb (Non-Executive)	Nick Munn (DCMS)

1. Executive Summary

- 1.1 There were 13,472 confirmed cases of 4G interference at 800MHz as of the end of December, excluding the 35 cases during the pilots. The position remains lower than expected.
- 1.2 All KPI targets were met in February; all 572 confirmed 4G interference cases were resolved within the 10 working day target, achieving a 100% pass rate. As the sixth consecutive month that the KPIs have been consistently achieved, the Board recognise all those contributing to the work of at800 and their joint achievements.
- 1.3 To address a recurring question on power levels at activation which leads to concerns of increases in reported interference and, dependent on timing, that there might not be an appropriate mitigation scheme to assist DTT viewers should levels rise post activation, I intend to write to the mobile network operators to seek clarification on the general approach of power levels at activation and future plans. Once the information is received, the Board will consider next steps.

2. at800 update

Roll-out

- 2.1 As of the end of February, there were 13,472 confirmed cases of DTT interference caused by 4G at 800MHz, excluding the 35 cases found within the pilots.

Mast Analysis

- 2.2 The monthly cases of interference per mast reported within 28 days of activation for 900m rose from 0.40 in December to 0.51 in January and for 1.5km, from 0.53 to 0.59. The number of cumulative cases per mast marginally increased from 0.34 (December) to 0.35 (January) for 900m and for 1.5km, from 0.47 to 0.48.
- 2.3 The average number of cumulative cases per active mast is at 1.29 (the same figure for January) and the rolling average of confirmed cases per activated mast across a 3-month period to February is 1.59, decreasing from an average 1.73 in the three months to January.

Installer Scheme and Audit Summary

- 2.4 Since November 2015, when the number of engineer visits peaked at 2,451, there has been a continual reduction in the visits undertaken month-on-month with 1,478 occurring in February 2016.
- 2.5 As the high quota of visits in November was attributed to high mailing volumes earlier in that month and during October in combination with issues at the Sandy Heath transmitter at the time generating an increase in calls and appointments, this downward trend reflects a steadier period, and perhaps a more realistic representation of the requirements upon the mitigation scheme within business as usual.
- 2.6 There were 1,621 visits originally scheduled to take place in February, 1,515 were undertaken and closed as arranged; 6 visits were rearranged by at800 to meet capacity restraints and the remaining 100 were cancelled by the viewer. Nearly 99% of the completed appointments took place within the three working day target.
- 2.7 To date, there have been 32,661 engineer appointments to unique addresses, of which 2,207 have been subject to audit.
- 2.8 There were 112 audits completed in February for engineer visits originally undertaken in December (38), January (68) and February (6) with a focus on work completed in Northern Ireland in response to doubts over the quality of work in the region.
- 2.9 There were eight overturns in total: six from 4G to non-4G and two from non-4G to 4G. The six 4G to non-4G overturns were attributed to the engineers concerned not accounting for factors such as pre-existing faults with connections and faulty TV and aerial equipment and the non-4G to 4G cases were due to oversights in following procedures to check findings.

- 2.10 There were also five overturns discounted owing to form completion errors: four were changed from 4G to non-4G and one from non-4G to 4G.
- 2.11 All the cases have been reviewed with the respective regional contractor lead managers to follow up with the relevant engineers.

Communications

- 2.12 Further to the extensive work undertaken by at800 to revise the awareness postcards to ensure that the recipients understood the content and 'call to action' to seek assistance should DTT interference occur, the updated designs, including a brand new combined postcard, are now ready to be piloted.
- 2.13 The new designs ensure the recognition of at800 as the sender and provider of a free mitigation service to DTT viewers who do not have satellite or cable services installed at their household, thereby addressing the main cause of policy related complaints, and the affiliation to, and oversight by, the Government and Ofcom to provide reassurance of the company as reputable.
- 2.14 at800 intend to introduce the combined postcard within the May or June mailing and a forthcoming reminder mailing alongside the other revised cards to enable comparisons on its effectiveness through the subsequent response rates.
- 2.15 Roger Darlington, Consumer non-exec Board member, noted that even if there wasn't a discernible sign of change in behaviour further to receipt of any of the revised postcards and/or new combined postcard, the effort to reassure and prime viewers on the potential of interference should be recognised as important and of value.

Public affairs

- 2.16 at800 reported on interactions with Mid-Ulster Council about concerns on the level of mitigation support available for satellite/cable viewers and that some households in the area had experienced interference but had not been mailed.
- 2.17 In early February, Ben Roome, at800 CEO, provided detailed information on at800's work in the area, explaining the remit and purpose of the mitigation scheme, including the background of its establishment at the behest of Government and the policies on whom the support is provided for, and the communications strategy to raise awareness to at-risk properties. The explanation also reported on the organisation's compensation policy with a breakdown on the reimbursements to that point and the existence of the Oversight Board.

- 2.18 In addition, in December 2015, Jonathan Rose, Ofcom's Northern Ireland Director, met with the council to address concerns on the impact of 4G mast activations at 800MHz on DTT and at that meeting he outlined the purpose and remit of at800.
- 2.19 Further to their communication to the council, at800 offered similar information to local newspapers to clarify their dealings with the council after some news articles misrepresented the situation. There have not been any further exchanges with the council or local media since; at800 continue to monitor the levels of interference and mitigation activity within the Mid-Ulster area.
- 2.20 On a more positive note, at800 were approached by and provided advice to a consultant tasked with scoping an 800MHz mitigation scheme for Brazil and also assisted the Swedish post and telecom regulator, PTS, on their plans for 700MHz further to their request for guidance. I consider that both these exchanges demonstrate the recognition of the UK mitigation scheme model as innovative and the favourable reputation of at800 and their deployment of the support.

3. KPI Report

- 3.1 at800 reported passes against all KPIs in February. All 572 confirmed 4G interference cases were resolved within the ten working day target achieving a 100% pass rate for KPIA1. The supporting KPIs passed with rates between 98.62% and 100%.
- 3.2 The Board noted the latest figures report the fourth consecutive month that at800 has met all the KPI and SLA targets and the sixth consecutive month for KPI targets only. The Board recognise all those contributing to the work of at800 and their joint achievements.

4. Chair of Coexistence Technical Working Group

- 4.1 The contract for the Chair of the Coexistence Technical Working Group (CTWG) and Technical Adviser to the Secretariat expired at the end of December 2015. Following a campaign that attracted healthy interest, Andrew Dumbreck has been re-appointed to the dual role; the Board looks forward to working with Andrew again.
- 4.2 As agreed at the January meeting, the CTWG will focus its efforts to better understand whether there are any common or shared characteristics of the minority of masts where data indicates that the majority of interference is confirmed (interference 'hot-spots') and if so, what those are and how this information may

assist as an additional indicator for at800 when predicting the likelihood of 4G interference in locations with similar masts.

- 4.3 A small advisory group, comprised of myself, Ben Roome, Dr William Webb, Technical non-executive Board member and Ian Dewhurst, Head of the Secretariat, will meet with Andrew each quarter to review progress and agree next steps etc. on behalf of the Board. The first review will take place in June.

5. Base station power levels

- 5.1 Both the Board and the CTWG have frequently raised the issue of actual base station power levels at activation. Whilst the prediction model presumes that the base station is operating at full licenced power upon activation, and therefore arguably over predicts at-risk households in areas where power levels may be lower, there are concerns that the number of interference cases may rise should power increase at a later date. Consequently, this may affect the mitigation support available in terms of retrospective assistance or perhaps, dependent on timing, the existence of the support in its current form.
- 5.2 With awareness that any network optimisation (increase in power levels, adjustments to antenna tilts etc.) may affect reported interference post activation, at800 have developed a procedure with all the 800MHz licenced mobile network operators to ensure they are notified of any changes and so may react accordingly. To date, at800 are not aware of any instances in which masts activated and functioning for some time have had reported interference beyond those cases in the initial period following activation.
- 5.3 There are informal reports from each mobile network operator about mast power levels at activation. These vary from the belief that masts initially radiate at the full licenced power with subsequent adjustments dependant on the characteristics of local mobile coverage (e.g. the proximity to other active masts on the same network) to the understanding that a mast's activation power could be lower than the licenced maximum from the outset.
- 5.4 It is my belief that, as a general rule, masts will increasingly operate below licenced power as the 4G at 800 MHz network matures with more, densely spaced, lower-power masts providing increased capacity, and higher power masts at the periphery of coverage. However, it would be useful to gain a greater understanding of the position regarding power levels at activation from each MNO and, if possible, the likelihood of these increasing in the future should the maximum licenced power not be in operation at the point of activation. Therefore, I will be writing to each 800 MHz

licensee to seek clarification on the general approach of power levels at activation and their future plans. Where confidentiality is required due to the nature of the information between competitive companies, the data should be provided directly to DMSL, for impartiality, and to anonymise before sharing with the Board. Once the information is received, the Board will consider next steps.

6. AOB & Next Meeting

- 6.1 The Board previously agreed to cancel the meetings scheduled for 25 February, 28 April and 23 June. The next formal discussion will take place on Thursday 26 May 2016.
- 6.2 However should issues arise that require discussion or a member requests a meeting, arrangements will be made accordingly. Board reports will be provided as usual, regardless of whether a meeting has taken place or not.

David Hendon

Chair

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