

4G/TV Co-existence Oversight Board Meeting: Wednesday 29 March 2017

Chair's report to Ministers and Ofcom

Attendees (in person)

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

1. Executive Summary

- 1.1 There were 19,706 confirmed cases of 4G interference at 800MHz as of the end of February 2017. The levels of interference remain within the revised estimates, based on actual experience, made by at800 in 2014.
- 1.2 All KPI and SLA targets were met. All 588 4G interference cases confirmed in February were resolved within the ten working day target, achieving a 100% pass rate for KPI A, Service Restoration.
- 1.3 DMSL raised concern on the potential of overlap between the 700 MHz viewer support scheme and 800 MHz mitigation operation and subsequent impacts upon the 4G coexistence KPI's. The Board will seek agreement on the formal monitoring and escalation procedures with the 700 MHz Clearance Board and recommends that once the 700 MHz viewer support scheme has been finalised, the details are shared with the Board to assist their understanding on possible conflicts with the 800 MHz mitigation operation.
- 1.4 The revised mailing trial met its objectives to ensure initial awareness and reminder postcards are timelier with the additional benefit of improving at800 working practices that are quicker, more reactive and better aligned to the MNO's operation teams.
- 1.5 The Board agreed to review the progress of the 4G roll-out at the December 2017 Board meeting. In the meantime, Ofcom will confirm how and when 4G licence obligations will be verified and communicated.

2. at800 update

Roll-out

- 2.1 As of the end of February, there were 19,706 confirmed cases of DTT interference caused by 4G at 800MHz, which includes the 35 cases found during the pilots conducted in 2013.

Mast Analysis

- 2.2 The numbers of cumulative cases reported within 28 days of mast activation for 900m and 1.5km remain steady at 0.29 and 0.39 respectively. The number of monthly cases reported within 28 days increased with 0.18 in January, from 0.10 in December, for 900m and for 1.5km, from 0.13 in December, to 0.22.
- 2.3 The average number of cumulative cases per active mast was 1.06 in February and the rolling average of confirmed cases per activated mast across a three-month period to February increased from 0.62 in January to 0.72.

Installer Scheme and Audit Summary

- 2.4 There have been 56,810 engineer visits with 51,431 to unique addresses of which 3,293 have been subject to audit.
- 2.5 There were 2,198 visits originally scheduled to take place in February; the majority, 2,024 were undertaken and closed as arranged; 7 visits were rearranged by at800 and 167 were cancelled by viewers. Nearly 93% of the completed appointments took place within the three working day target.
- 2.6 A total of 112 audits were completed in February for engineer visits originally undertaken in December (17), January (79) and February (16) on the work and locations of 31 different engineers who had not been surveyed in the previous 3 months.
- 2.7 There were 5 overturns in total: 3 from 4G to non-4G, which were all due to the engineers concerned not performing the required filter tests to establish impact and possible causes, and 2 from non-4G to 4G that were associated to the same engineer; the cases were complicated by factors including a filter incorrectly fitted by the viewer and an extended aerial system that led to the initial misdiagnoses, which at800 report is unusual from this particular engineer.

- 2.8 All overturns, and the 5 form completion errors (3 from 4G to non-4G and 2 from non-4G to 4G), have been raised with the respective regional contractor management teams to follow up with the relevant engineers.

3. Activities related to the 700 MHz clearance programme

- 3.1 In November 2016, the 700 MHz Clearance Programme Board (CPB) offered initial views of the potential adverse impacts of the programme upon the 800 MHz mitigation scheme and the support required to prevent the risks of disruption occurring.
- 3.2 As the remit of the Oversight Board is to monitor the mitigation scheme performance within the KPI framework, one of the Board decisions was that DMSL would report its view of the risk of clearance events impacting the 800 MHz co-existence mitigation programme (i.e. at800) and the steps taken to address those in its regular updates to both the DMSL Board and the Oversight Board; this is the first of such narratives.
- 3.3 DMSL has been working separately with DUK, DCMS and Ofcom to help provide in-home aerial support as part of a retune of the Selkirk DTT transmitter, the first 700 MHz clearance-related event impacting viewers, taking place during March 2017.
- 3.4 The support has included various communication activities to raise awareness of the trial (on-screen messages, local press and social media) and the assistance available involving the provision of a dedicated advice line for retuning and diagnosing issues (managed by DUK) and the availability of an aerial support team (DMSL) for specific in-home assistance should the need arise.
- 3.5 In preparation for the trial itself and to avoid any impact and/or overlap with the 800 MHz operation, DMSL set out to ensure that the potential confusion of viewers in the Selkirk area was minimal by limiting communications to just one scheme. This was achieved by identifying those properties which would have received an initial 'at-risk' mailing as part of the 800 MHz operation within the c18,000 households likely to receive their DTT service from the Selkirk TV transmitter and therefore affected by the retune trial (i.e. as part of the 700 MHz clearance).
- 3.6 As just 4 households met this criteria, DMSL decided that the number was small enough to merit the minor risk of confusion and that should they make contact, at800 would be able to handle any queries from these viewers; therefore, these households were mailed initial postcards as per the usual procedures in February.

- 3.7 DMSL repeated the analysis of potentially affected 800 MHz viewers with the processes for reminder mailings and identified 1,834 properties. As a large number of at800 reminder postcards would have landed at the beginning of the Selkirk retune event with viewers who would also have been presented with on-screen messages to call a separate dedicated helpline should they require retuning support, it was decided to delay the 800 MHz reminder mailings until after the trial.
- 3.8 As reminder mailings are an optional part of the 800 MHz mitigation support without a specific Service Level Agreement (SLA) target within DMSL, the decision to suppress postcards has no bearing on the Key Performance Indicators (KPIs) by which the at800 operation is required to adhere.
- 3.9 However, this has prompted DMSL to alert the Board of the potential for similar situations to occur in the future in which there could be an impact on SLAs DMSL is expected to meet, particularly once the 700 MHz clearance programme escalates and the likelihood of overlap between the 800 MHz mitigation scheme and any permanent 700 MHz viewer support increases.
- 3.10 Therefore the Board has agreed that, in the interim, DMSL and DUK will collaborate and agree the thresholds where decisions made as a consequence of the 700 MHz viewer support programme affect any of the SLAs related to the 800 MHz mitigation scheme are either made internally, and without wider consultation because of the relatively small number of households affected or impacted, or require awareness/escalation to the Board via the Chair, who will in turn liaise with both DCMS and Ofcom as necessary.
- 3.11 In situations where it is likely that any decisions made will significantly impact upon at800's initial mailing SLAs, DMSL/at800 will make the Chair and Board aware as per the existing notification procedures.
- 3.12 The Board recognise that this is not a suitable long-term solution. As the 700 MHz clearance programme accelerates, probably around Q1 2018, the possibilities of adverse impacts upon the 800 MHz mitigation operation increases. Therefore, on behalf of the Board, I will seek a more formal agreement with the Chair of the 700 MHz Clearance Programme on how to monitor, share and escalate any adverse impacts upon the 800 MHz mitigation and any potential overlap with the 700 MHz viewer support scheme once fully operational.
- 3.13 In addition, and in recognition of a need to understand how the 700 MHz viewer support scheme will operate and from when so that any possible conflicts with the

800 MHz mitigation scheme may be identified and addressed, the Board recommend that once DCMS is aware of the decisions and agreements made in relation to clarifying the scope, composition and commencement of the support scheme, they should formally confirm this to the membership. In the meantime, the Board will continue to monitor the situation.

4. Revised Mailings

- 4.1 at800 presented their final report on the mailing operation trial, which took place from July 2016 to January 2017. The objectives of the trial were to increase the likelihood that at-risk households will receive a postcard shortly before actual mast activation and for timelier reminder mailings if mast activation is delayed or further mast activations within the relevant area are predicted to cause significant compound interference.
- 4.2 at800 reports that the trial met both objectives with a more accurate representation of forecast mast activations which occur as scheduled, an increase in the number of properties receiving an initial mailing up to eight weeks before a new mast activation (49% compared to 34% in the previous regime) and a significantly greater proportion of properties (92%) in receipt of a more timely reminder postcard than under the former approach (18%).
- 4.3 In conclusion, the trial has been successful in achieving a more targeted mailing operation with quicker and more reactive processes that have subsequently helped the MNO's in adapting the forecast information as and when required with minimal impact upon at800.
- 4.4 at800 will continue to analyse the revised mailing operation with a view to understanding if there are any underlying reasons to explain why the interaction from viewers has remained at the same level despite a more targeted approach.
- 4.5 The on-going project by the Coexistence Technical Working Group (CTWG) on clutter (i.e. line-of-sight between base stations and household antennas) has the potential to further refine the prediction modelling for initial postcards as part of at800's secondary mailing processes; the MNO's have invited CTWG to liaise with their own Clutter Modelling teams for any information which might help the project. In particular the aim is to identify those households that although identified at risk by the present model, are thought to be in practice extremely unlikely to experience

interference and not mail those, thus reducing unnecessary anxiety for householders and costs to the programme.

5. KPI Report

- 5.1 at800 reported passes against all KPI and SLA targets in February 2017.
- 5.2 For KPI A Service Restoration where a household is a primary DTT user, all 588 confirmed 4G interference cases were resolved within the ten working day target, achieving a 100% pass rate.

6. AOB & Next Meeting

- 6.1 The Board discussed the optimum time to assess the position of 4G mast activations (i.e. roll-out) with consideration of the timetable set by Ofcom on both the coverage licence obligations for one MNO and the life of the Board itself (31 December 2018).
- 6.2 It was agreed that the December 2017 Board meeting (Wednesday 20 December) would be most suitable, particularly as the MNO's will be finalising their activation plans for 2018 around this time as part of the usual DMSL budget planning timetable.
- 6.3 In the meantime, Ofcom will confirm to the Board how and when the coverage licence obligations will be verified and communicated.
- 6.4 Greg Thompson has replaced Erol Hepsaydir as the Board member representative for Three. I thank Erol for his contributions to the discussions and agreements during his time on the Board since September 2015.
- 6.5 The next formal Board discussion will take place on Wednesday 21 June 2017.

David Hendon

Chair

4G/TV Co-existence Oversight Board