

4G/TV Co-existence Oversight Board Members Meeting

Chair's report to Ministers and Ofcom

Meeting date: 19 August 2014

Attendees

David Hendon, Chair

Paul Rosbotham (Vodafone)

Robin Vernon (O2)

Kip Meek (EE)

Erol Hepsaydir (Three)

Alan Boyle (BBC)

John Ballard (Arqiva)

Khalid Hayat (ITV)

Roger Darlington (Non-Executive)

Jane Humphreys (DCMS)

Ben Roome (DMSL)

Mark Caines (Ofcom)

Alberto Fernandes (Ofcom)

Andrew Dumbreck (Technical Advisor)

Ian Dewhurst (DCMS)

Sue Ramroop (DCMS)

Michelle Brownrigg (DUK)

Apologies

William Webb (Non-Executive)

Peter Couch (Arqiva)

Phil Sheppard (Three)

Kevin Burrows (Channel 4)

Inge Hansen (EE)

1. Executive Summary

- 1.1 There were 2599 confirmed cases of 4G interference at 800MHz as of the end of July, excluding the 35 cases during the pilots. The position remains lower than expected.
- 1.2 All trial KPI targets were met. For KPIA, there was a 100% pass rate of service restoration where a household is a primary DTT user as all 366 confirmed 4G interference cases were resolved within the 10 working day target.
- 1.3 The Board agreed the Policy sub-group proposals further to their review of the trial KPI/SLA regime. These include a RAG (red, amber, green) reporting format and the rationalisation of existing working day targets to accurately reflect and encourage at800's performance.
- 1.4 Subject to agreement by the mobile network operators to modify their current mast notification procedures, the Board approved proposals by at800 for operational changes to reminder mailings to narrow the time between a viewer receiving a postcard and a nearby mast activating to improve awareness and reduce the likelihood of unreported interference. at800 will conduct a trial to test the notification procedural and operational changes before considering extending this to all mailings.

- 1.5 Ofcom is content to extend the trial period to 1 October, in line with the pre-existing agreement to forbear Operational Conditions. Their Policy Executive will consider the extension proposal beyond that date to the end of 2014 and confirm their position thereafter.
- 1.6 Kevin Burrows replaces Kim Chua as the Channel 4 representative on the Board.

2. at800 update

Roll-out

- 2.1 As of the end of July, there were 2599 confirmed cases of DTT interference caused by 4G at 800MHz, excluding the 35 cases found within the pilots. To date, there have been 9447 installer appointments in total, which includes repeat visits. A total of 8267 unique addresses have been visited; 1066 unique addresses were visited in July resulting in 366 installer diagnosed 4G interference cases.

Mast Analysis

- 2.2 Interference reported within 28 days of mast activation has decreased with the number of cumulative cases reported for distances of 900m and 1.5km both at 0.17 in July, from 0.19 for 900m and 0.27 for 1.5km in June. The spike of reported cases in June is considered by at800 to have been a result of the coincidence of a large number of reminder mailings (over 400,000 postcards) with mast activations, prompting viewers to report interference.
- 2.3 The rolling average of confirmed cases per activated mast across a 3-month period continues to decrease with 1.11 in the three months to July from 1.37 in the three months to June and the total cumulative number of cases per mast has remained almost static at 0.83 in July compared to 0.82 in June.

Audit Summary

- 2.4 Due to the focus of at800 on completing the pre mast activation phase of the 4G Insight Project (see para 2.9), only 6 audits were completed in July, examining installer visits first completed between March and May.
- 2.5 Whilst the number of overturned diagnoses for both confirmed 4G and non-4G cases continues to decrease (only 1 case from 16 originally diagnosed as non-4G in May was overturned), at800 have identified that this could be improved further by ensuring that installers are completing their on-site reports accurately, enabling correct initial diagnoses. at800 are working closely with installers on this issue and has contracted an industry expert to support this work.

Outreach

- 2.6 In conjunction with Digital Outreach Limited (DOL), at800 work with charity sector organisations to ensure vulnerable viewers are aware of the mitigation assistance available, including the provision of a chaperone to accompany visits from at800-accredited installers, via trusted individuals and groups.
- 2.7 Outreach work is carried out on a regional basis in combination with other areas of the operation. at800 and DOL have approved amendments to their contractual service level agreements that are more appropriate in ensuring that the delivery of the various awareness activities is based on the number of voluntary groups in an area rather than an overall target which may not be achievable depending on local circumstances e.g. limited number of voluntary groups. In July, the outreach work involved 184 briefings involving face-to-face (79), telephone calls (69) and email (36) activities.

Website

- 2.8 at800 launched their revised website on 9 July. Improvements to the site include easier navigation and search tools as well as a "decision tree" which enables visitors to self-diagnose whether an interference issue is potentially related to 4G mobile signals and the next steps on how to resolve this, including whom to contact e.g. at800 or Digital UK depending on the circumstances. Since the launch, at800 have seen an increase in the proportion of visitors to the site being guided through the online self-diagnosis tool.

Research update

- 2.9 As part of the 4G Insight Project, there has been an initial data capture of the pre-mast activation levels of DTT reception signals at sixty separate sites within a Channel 60 test area. As requested by the Coexistence Technical Working Group (CTWG), at800 have taken measurements at a height of 10m to enable comparison against the UKPM.
- 2.10 It is not expected that the mast in the test area will be activated until October; at800 will confirm the date once known particularly to enable the CTWG to co-ordinate visits to the area to conduct their own tests and observations.
- 2.11 In the meantime, the results of the data loggers, including those of the four loggers which have also been capturing DTT signal information in households within the

Channel 60 test area, are being analysed by at800 and will be used to refine the predictions of the LS Telcom model. The analysed results will be shared with the CTWG.

- 2.12 A full report of the online post-activation survey of the households in affected and non-affected areas in Belfast will be provided to the Board in September. An initial report has already been provided to Digital UK.

3. KPI report

- 3.1 at800 reported passes against all KPIs with no exceptions. This included a 100% pass rate for KPIA for service restoration within 10 working days where a household is a primary DTT user; all 366 confirmed 4G interference cases in July were resolved within the target.
- 3.2 In July, 103 (28%) of the 366 confirmed cases were reported from outside of the mailed area. In comparison, the percentage of confirmed cases from outside of the mailed area since the risk-based trial began in February are 4.7%, 6%, 2.17% and 6.2% for March, April, May and June respectively.
- 3.3 at800 suggested that this spike was due to the increases in above the line advertising and outreach work in the specific areas, prompting viewers in untargeted locations to make contact and proposed that the CTWG investigated further to identify the cause(s).
- 3.4 The Board also considered that this may be due to an assumption in the prediction modelling about which DTT transmitter households are tuned to which will generate a scenario different to reality. The Board requested that at800 provide the relevant data to the CTWG for further investigation.
- 3.5 The Board also discussed the validity of conducting research into understanding whether the provision and installation of a filter by a viewer who had not had or requested an installer visit resolved their interference issue(s). It was accepted that this would involve a bespoke research project, which at800 would be able to conduct if required, with associated costs. DCMS will consider further, taking into account the potential benefit in developing understanding from both technical and behavioural perspectives for the future and the funding requirements.

4. Policy sub-group: KPI/SLA review

- 4.1 Roger Darlington presented the Policy sub-group proposals further to the review of the trial KPI/SLA regime.
- 4.2 The sub-group, comprised of representatives from the broadcasters, at800 and DCMS, had taken into account the necessity to future-proof the KPIs to enable further reviews of the thresholds if and when required. This will not only encourage at800 to continue improving their performance and enable operational flexibility but also ensure that any imposition of Operational Conditions are proportionate in the event they are required, as set out by the initial trial proposals to Ofcom in December 2013.
- 4.3 The proposals were divided into two parts; the first set, agreed and recommended by the whole Policy sub-group, covered all KPI's and SLA's except SLA B1 and B4 – B6 (relating to mailings), which were provided by at800 only as a separate set of proposals for Board consideration.
- 4.4 The first set of proposals (excluding SLA B1 and B4 – B6) included the introduction of a RAG (Red, Amber, Green) reporting format from the pass/fail approach, the rationalisation of existing working day targets for some sub-KPI categories to both simplify the reporting process and encourage performance by reducing the maximum target in which the measure must be met and the inclusion of detailed information (including tables) for specific SLA's to provide a more accurate reflection of performance.
- 4.5 The Board discussed and agreed the proposals for the trial KPI/SLA regime (excluding SLA B1 and B4-B6). at800 will report against this amended KPI and SLA regime with immediate effect.
- 4.6 at800 also separately requested to remove a restriction imposed in the previous trial KPI/SLA regime that required postcards to land with viewers at least three weeks ahead of potential mast activation. The Board agreed that the three-week waiting period could be waived in the new KPI/SLA regime so that masts could activate immediately once viewers have received postcards.
- 4.7 In addition, at800 also asked the Board to steer whether the classification of a mast should be based on frequency block or physical location of a mast. This request was

specifically in relation to SLA D3, which measures the number of cases of interference per mast remaining within the 0.17 and 1.66 ranges.

- 4.8 The current assumption of the number of masts used to calculate this measure was taken from the original Deloitte report which estimated the cost of interference mitigation based on the mast information provided by mobile network operators. Based on experience, at800 are aware that in circumstances where all operators share a physical mast location, they will be occasions when they have (or will be) informed of planned or confirmed activations three times. This potentially impacts on the current calculations and reporting for SLA D3, which is used to gauge the expected level of interference across the life of the rollout programme.
- 4.9 The Board discussed the issue, taking into consideration the commercial sensitivities of the mobile network operators and precise mast information balanced with the need for accuracy of confirmed interference levels for an understanding of current and potential spectrum interference issues at both a national and global scale. On reflection, the Board agreed that, for consistency, at800 should continue to report based on current assumptions and that the results should be closely monitored, particularly as and when the upper limit of the current range (i.e. 1.66) is approaching.

Timing of postcards to likely mast activations – SLA B1 and B4 – B6

- 4.10 at800 presented their proposals to amend the current operational approach regarding SLAs B1 and B4 - B6 regarding mailings. The overall aim is to narrow the time between a viewer receiving a postcard and a nearby mast activating, reducing the mailing lists based on activation forecasts of ten weeks to 12 days.
- 4.11 at800 stated that evidence indicates that of masts activations initially scheduled 10 weeks in advance, only 42% take place within 6 months. The consequences of this are that, in line with the current mailing awareness policy, potentially affected households would have been initially mailed well in advance, probably with a reminder mailing too, and the relevant mast may still not have been activated or be likely to in the near to mid future.
- 4.12 This increases the risk that viewers will not retain the postcard and therefore be unaware of interference issues and whom to contact. Results from consumer research in Manchester showed that the recall of postcards fell from 42% by

recipients surveyed one month after receipt, to 13% when surveyed six months after receipt. When analysing the accuracy of weekly activation notifications, at800 noted only 11% of masts do not activate within 3 months.

- 4.13 Further to evidence and observations, at800 proposed adapting the current operation to despatch reminder mailings before planned mast activation based on the most up to date information provided by the mobile network operators as part of their regular mast plans e.g. 12 calendar days in advance of activation.
- 4.14 at800 confirmed that their operations were able to meet this modification and recommended a trial to test the proposal. The trial would involve suspending the existing reminder mailing operation to enable accurate assessment of the results. at800 will liaise with the mobile network operators about the modifications needed to the current mast activation notification procedures before finalising the trial details.
- 4.15 The Board agreed that it is in the best interests of the viewer to be aware of potential interference and the availability of the mitigation scheme as close in advance as possible to mast activation. It was also agreed that the core principle for initial mailings to arrive at households before a mast activates remained a key requirement. The Board approved the proposal subject to the agreement of the mobile network operators to modify their current mast notification procedures.
- 4.16 at800 will explore the potential to reduce the notification timetable further with the mobile network operators, once agreement has been reached on modifying the mast activation notification procedures, and conduct the reminder mailing trial as set out in the proposal. A progress report will be made to the Board at the September meeting. Once the trial has concluded and the Board have reviewed the results, consideration will be given to extending this operational change to all mailings i.e. initial awareness.

5. Trial of new operating model

- 5.1 In June, I reported that the Board had agreed with my proposal to extend the trial period to the end of 2014 to allow for more data to be gathered enabling an evidence-based assessment of the new operating model.

- 5.2 Ofcom was content to extend the trial period to 1 October, in line with the pre-existing agreement to forbear Operational Conditions. Their Policy Executive will consider the extension proposal beyond that date to the end of 2014 and confirm their position thereafter.

6. AOB & Next Meeting

- 6.1 Kevin Burrows replaces Kim Chua as the Channel 4 representative, whom I thank for her contributions to the Board. We look forward to working with Kevin.
- 6.2 The next scheduled meeting is on Tuesday 23 September 2014.
- 6.3 The meetings for February to December 2015 have all been scheduled and will take place at Ofcom.

David Hendon

Chair

4G/TV Co-existence Oversight Board