

## **4G/TV Co-existence Oversight Board Meeting**

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

**Meeting date: 28 January 2016**

### **Attendees**

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

## **1. Executive Summary**

- 1.1 There were 12,194 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 December; all 773 confirmed 4G interference cases were resolved within the 10 working day target, achieving a 100% pass rate.
- 1.3 at800 has completed initial testing of their proposal to align the timing of postcard receipt to actual mast activation. The results indicate the likelihood that 40-60% of households would receive notification after mast activation with up to 20% of those receiving a postcard more than 2 weeks afterwards. The Board have requested at800 re-visit the issue with the objective for postcard receipt to occur no more than 1-2 working days after mast activation. If this target is not achievable, at800 will withdraw the proposal. Once this potential operational change has been resolved either way, at800 will focus on the implementation of the model parameter modifications and relevant transition plans.

## **2. at800 update**

### **Roll-out**

- 2.1 As of the end of December, there were 12,194 confirmed cases of DTT interference caused by 4G at 800MHz, excluding the 35 cases found within the pilots.

## Mast Analysis

- 2.2 The cumulative cases of interference reported within 28 days of mast activation for 900m and 1.5km rose slightly in November, 0.34 and 0.47 respectively, from 0.32 and 0.45 in October, whilst the number of monthly cases per mast decreased from 0.66 (October) to 0.62 (November) for 900m and from 0.83 to 0.71 for 1.5km.
- 2.3 The average number of cumulative cases per active mast is at 1.26 and the rolling average of confirmed cases per activated mast across a 3-month period to December is 1.60, decreasing from an average 1.76 in the three months to November.

## Installer Scheme and Audit Summary

- 2.4 Due to the reduction in the number of calls and availability in engineer capacity, there was a 22% decrease in the visits undertaken in December (1,985) from November (2,557).
- 2.5 Of the 2,128 visits originally scheduled to take place in December, 1,972 were undertaken and closed as arranged; 13 visits were rearranged by at800 to meet capacity restraints and the remaining 143 were cancelled by the viewer. Nearly 99% (1,856) of the completed appointments took place within the three working day target.
- 2.6 To date, there have been 29,849 engineer appointments to unique addresses, of which 1,979 have been subject to audit.
- 2.7 There were 84 audits completed in December for engineer visits originally undertaken in October (26), November (51) and December (7) and of these audits, there were three overturns: two from 4G to non-4G and one from non-4G to 4G. The cases have been reviewed with the respective regional contractor companies to remind the relevant engineers to consider all reception factors that may be contributing to interference issues.
- 2.8 It has recently come to my attention that since summer 2015, at800 has conducted an 'Engineer of the month' award, recognising those with exceptional customer service and consistently accurate data collection. The most recent award winner was selected because of the extraordinary support and assistance provided to an elderly couple in improving their overall DTT reception despite a lack of interference issues caused by 4G mobile signals; a commendable demonstration of the commitment of at800-accredited engineers to assist viewers where able.

## Communications

- 2.9 In October 2015, I reported the findings of the qualitative research undertaken by at800 into the effectiveness and content of the postcards and the intention for a simpler eye-catching version that addressed the feedback results. The new designs have been developed and market testing to assess the clarity of the content and understanding of what course of action might be required (i.e. contacting at800 or Digital UK) and support available will be carried out during January 2016 with results due in February.

Mailings – special mailing

- 2.10 Further to a special request from a mobile phone operator to activate some of the masts earlier than the planned activation in February 2016, at800 conducted a specific mailing exercise to 15,626 households in early December. The remaining 79,017 properties eligible for mailing because of the planned February activations will be mailed, as usual, during January.

Mailings – aligning receipt closer to mast activation

- 2.11 In November 2015, I outlined the intention of at800 to present their proposals on reducing the timing of postcard receipt in relation to actual mast activations (i.e. reminder mailings) in conjunction with their findings on the impacts upon mailing volumes further to the parameter modifications to the prediction model recommended by the Coexistence Technical Working Group.
- 2.12 Using the most up to date information provided by the mobile network operators as part of their regular mast plans, at800 expected to narrow the time between a viewer receiving a postcard and a nearby mast activating, thereby reducing the risk that viewers will not retain postcards and be unaware of potential DTT interference issues and whom to contact for assistance.
- 2.13 Concentrating efforts on the issue of the timeliness of postcards in anticipation of reviewing the impact of changes to the prediction model upon mailing volumes at a later date, at800 conducted rigorous analysis of available historical data of when actual mast activations occurred against the revised mailing operation to test their proposal. Initial results indicate that 40-60% of households would receive a postcard after a mast activates with 20% of those more than 2 weeks after activation.
- 2.14 at800 informed the Board that their view was that this is not acceptable for various reasons including the underlying principle to provide appropriate mitigation support in a timely manner to affected DTT viewers as well as the subsequent reputational damage for their organisation and sought views and steer on next steps.

- 2.15 The Board discussed the issue extensively, considering issues such as whether it is acceptable to receive a postcard after mast activation and if so, how long after; the likelihood of viewers to resolve interference issues themselves by contracting private engineers (and therefore increase compensation claims to at800); the potential to revise the actual mast activation process within each MNO to enable timing to align with postcard receipt (recognising the limitations with this due to the numerous parties involved throughout the supply chain) and the overriding objectives that the 4G roll-out programme is not delayed and viewers are not disadvantaged beyond a reasonable period.
- 2.16 In consideration of these objectives, the Board were in agreement that receipt of postcards 1-2 days for the majority of identified households after mast activation would be acceptable.
- 2.17 The Board requested that at800 re-visit the issue with a view to reduce the timing of postcard receipt after mast activation within that scope, utilising available financial resource where necessary. In addition and bearing in mind the complexity of the supplier and contractor chains within the mast activation process, the MNO's may wish to consider the potential to enhance the accuracy of when activation will actually occur as this might assist the at800 mailing operation in any event.
- 2.18 If the 1-2 day target for an acceptable majority percentage of identified households is not achievable, at800 will confirm to the Board and withdraw the proposal to amend the mailing operation to align postcard receipt with actual mast activation.
- 2.19 The adoption of the recommendations by the CTWG to modify the model parameters and the subsequent impact of increased mailing volumes will be explored by at800 once the mailing issue is resolved either way.

### 3. KPI Report

- 3.1 at800 reported passes against all KPIs. All 773 confirmed 4G interference cases in December were resolved within the ten working day target achieving a 100% pass rate for KPIA1. The supporting KPIs passed with rates between 98.74% and 100%.

### 4. Future work proposals – Coexistence Technical Working Group

- 4.1 The CTWG submitted proposals for future work to aid the current coexistence programme and to enhance the understanding of DTT coverage and coexistence generally.

- 4.2 Following discussion, the Board approved the proposal 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 Once the technical analysis has completed, consideration is to be given as to whether there may be other factors involved which have contributed to the higher numbers of confirmed interference. For instance, whether these are smaller communities in which it is more likely for the inhabitants to share information on issues such as TV reception and whom to contact for resolution or where the communication strategy has been particularly effective in raising awareness, prompting a higher number of calls to at800 than is usually observed.
- 4.4 The remaining work proposals will remain 'on hold' until the Board advises CTWG otherwise or the findings of the initial work into mast characteristics indicates that there is a link or need to explore the other proposals e.g. the power levels of base stations.

## 5. AOB & Next Meeting

- 5.1 The Board agreed to cancel the meetings scheduled for 25 February and 28 April with the next formal discussions to take place on Thursday 17 March 2016. 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

4G/TV Co-existence Oversight Board