

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

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

**Meeting date: 17 June 2015**

### Attendees

David Hendon, Chair

Paul Rosbotham (Vodafone)

Robin Vernon (O2)

Alan Boyle (BBC) (via tele-conference)

Alexandra McNair (ITV)

Peter Couch (Arqiva)

Roger Darlington (Non-Executive)

Mark Caines (Ofcom)

Ben Roome (DMSL)

Nick Munn (DCMS)

Alberto Fernandes (Ofcom)

Ian Dewhurst (DCMS)

Andrew Dumbreck (Technical Advisor)

Sue Ramroop (DCMS)

Michelle Brownrigg (DUK)

### Apologies

William Webb (Non-Executive)

Inge Hansen (EE)

Phil Sheppard (Three)

Philip Milton (Channel 4)

## **1. Executive Summary**

- 1.1 There were 6,710 confirmed cases of 4G interference at 800MHz as of the end of May, excluding the 35 cases during the pilots. The position remains lower than expected.
- 1.2 There is an expectation that Block A/Ch 60 masts will be fully operational by the end of 2016. at800 will monitor interference levels closely in the relevant areas.
- 1.3 All KPI targets were met in May. All 532 confirmed 4G interference cases were resolved within the 10 working day target.

## **2. at800 update**

### Roll-out

- 2.1 As of the end of March, there were 6,710 confirmed cases of DTT interference caused by 4G at 800MHz, excluding the 35 cases found within the pilots.
- 2.2 at800 informed the Board that there is an expectation that a number of Block A masts in Channel 60 areas will be open to commercial traffic in the near future and fully operational by the end of 2016. at800 will closely monitor impacts on interference levels in the relevant areas and advise the Board accordingly.

### Mast Analysis

- 2.3 The monthly and cumulative cases of interference reported within 28 days for distances within 900m and 1.5km have remained steady. In April, the number of

monthly cases was at 0.40 (from 0.43 in March) and 0.54 (from 0.53) for 900m and 1.5km respectively, with the cumulative cases for 900m at 0.20 (from 0.18) and 0.34 (from 0.33 in March) for 1.5km.

- 2.4 The rolling average of confirmed cases per activated mast across a 3-month period to May was 1.19 and the average number of cumulative cases per mast was at 1.07. Whilst a minor increase on the 1.05 figure for April, this figure remains well below the upper range of 1.66 cases.

#### Installer Scheme and Audit Summary

- 2.5 In May, 1,475 visits were originally scheduled to take place; a 19% increase in the number of visits from April (1,203) as a result of a high volumes of mailing activity throughout April and May.
- 2.6 The majority of scheduled visits (1,354) were undertaken and closed as arranged, with 37 appointments (2.5%) rearranged by at800 to meet capacity restraints and the remaining 84 (5.7%) cancelled by the viewer.
- 2.7 There were 50 audits completed in May for engineer visits originally undertaken in March (7), April (41) and May (2). There were no overturns.

#### Mailings and communications

- 2.8 Due to the improved interaction with the MNO's in the provision of mast activation plans, at800 noted that it has been able to respond in a more timely manner in targeting mailings to households in locations where activations are occurring to meet capacity requirements because of a social or sporting event e.g. music festivals. Whilst this not only benefits consumers and viewers, this has positive impacts for at800 who are able to plan its resources (e.g. engineers and awareness campaigns) more effectively.
- 2.9 Changes to UK calling charges from 1 July 2015 will mean that calls to Freephone numbers will become free from mobiles as well as landlines. As a result, at800 will only offer their Freephone contact details and are re-designing the postcards (and website) to reflect that change. The Freephone number for at800 is 0808 13 13 800.
- 2.10 With an increase in available space on the postcard, at800 are working with Digital UK (DUK) on the possibilities for including information on how to contact Freeview directly with interference issues not related to the 4G rollout at 800 MHz.
- 2.11 at800 engineers already issue information cards on behalf of Freeview (and DUK) to viewers whose DTT television reception issues are non-4G and this is an extension

of that joined up approach. Focus groups will be consulted for feedback on the proposals.

#### Research – online survey

- 2.12 at800 shared the results of its recent online market research to assess the timeliness and effectiveness of its communication activities. Whilst previous studies have focused on households where Freeview was the only television service, this research captured responses from targeted areas regardless of the TV viewing platform.
- 2.13 The responses of 310 respondents were analysed from locations across the UK that were identified as having had some form of marketing communication exposure in the 5-8 week period before the survey began, which may not necessarily have included a mailing campaign.
- 2.14 The results were categorised into 3 areas: awareness of changes to Freeview and the introduction of 4G services, communications and reception quality and general satisfaction with Freeview.
- 2.15 18% of all respondents were aware of some activity that may have affected Freeview reception and over half (54%) would expect to receive information about potential issues through the post with coverage in local newspapers too. Both of these methods are used as primary tools by at800 in their awareness campaigns.
- 2.16 Of the 117 respondents with Freeview services, the majority rated their reception as OK, good or excellent; 8% claimed to have issues with their reception, citing pixilation and blocky images on screen. DUK are interested in exploring what those viewers do next to resolve those issues.
- 2.17 In conclusion, at800 were of the opinion that the survey did not raise any significant or new insight. The preferences indicated for marketing and awareness are already within at800's scope and the work to re-design the postcards to include information on how to contact Freeview with pre-existing reception issues is part of on-going communication development plans.

#### Research – Reactive Filter

- 2.18 The Reactive Filter research project, which will assist understanding of the impact the provision of reactive filters have had on the levels of reported interference, has begun with initial results of the first cohort of 102 households shared with the Board.
- 2.19 The total sample of 400 was selected from an available pool of 3,477 homes that met the research specifications (i.e. were not a communal household, had not had a subsequent engineer visit, were not in London, were a property identified by at800 as

potentially experiencing 4G interference) from the 31,837 households that have been provided reactive filters by at800.

- 2.20 Further to the evaluation of these initial results, at800 has concluded that it is probable that the reactive filter could have resolved 4G interference on DTT services, should it have been experienced, in up to 55% of these households.
- 2.21 Therefore, at800 will be conducting follow-up work through outbound survey calls to each home to understand whether there were DTT reception issues, and if so, whether the filter was actually received, fitted and resolved those and whether the interference experienced was likely to have been caused by 4G signals at 800 MHz.
- 2.22 Consideration will also be given to undertaking DTT and LTE measurements at each physical location whilst gathering information on the individual aerial installations to enhance the data for deeper analysis.
- 2.23 at800 and DCMS (through the Coexistence Technical Working Group - CTWG) will corroborate on the next phases of the research work and share these with Ofcom before reporting back to the Board with the subsequent results.

### 3. KPI Report

- 3.1 at800 reported passes against all KPIs including a 100% pass rate for KPIA for service restoration within 10 working days where a household is a primary DTT user; all 532 confirmed 4G interference cases in May were resolved within the target.
- 3.2 Last month I reported month that at800 were developing a more automated system to assist with scheduling engineer appointments to improve capacity management, particularly across regions.
- 3.3 This system is now operating with positive results; whilst the relevant KPI 1A target of 97.5% of engineer visits completed as scheduled with the viewer was marginally missed again this month by 0.01%, initial analysis of the appointments scheduled and undertaken within June so far indicates that the targets will be comfortably met this month and the need to rearrange visits eradicated.

### 4. Coexistence Technical Working Group (CTWG)

- 4.1 The CTWG will provide recommendations for modifications to the prediction model for Board consideration by August (2015) at the latest.
- 4.2 The objective of the modification was to improve the accuracy of the mailings and initial testing has shown that the changes have been successful in meeting that

purpose. The group is exploring the various options and subsequent impact upon the mailing operation and will include these as part of the overall recommendations.

- 4.3 at800 noted that through the technical work the CTWG have undertaken to date in understanding the interference issue better, it has been able to analyse the spread of cases across the country and identify patterns at a macro level. For the majority of masts there are no confirmed cases of interference related to their activation whilst just 30 to 40 masts have ten or more confirmed cases.
- 4.4 at800 intends to use this information to adapt its mailing and communications campaigns accordingly by classifying the common characteristics of the masts with the most cases and then scrutinising the information in future activation plans for those traits, thereby improving the awareness of households in those areas to the potential interference issues and of at800's existence and purpose.

## 5. AOB & Next Meeting

- 5.1 The next meetings are scheduled for Wednesday 29 July and 26 August 2015. In consideration of the holiday season, the Board agreed that we might cancel these meetings unless there is a need to meet.
- 5.2 I invited the Board to attend the August meeting (26 August) via tele-conference if the meeting should need to go ahead and decisions on both the July and August meetings will be taken closer to the scheduled dates. In any event, the September meeting (Wednesday 23<sup>rd</sup>) will go ahead as arranged.
- 5.3 The meeting timetable for 2016 was also briefly discussed as arrangements for scheduling has begun. The Board considered the validity of reducing the frequency of meetings to bi-monthly, reserving the option to meet sooner should circumstances change and/or a Board member proposes to do so. It was agreed that whilst the meetings will be organised for a monthly roster, a decision on when the Board will next meet would take place at each meeting or via correspondence in the intervening period.
- 5.4 I note that Board representation for two MNOs has been sporadic since the beginning of 2015. As such, I intend to write to both organisations to remind them of the expectation that in the event that the named Board member is unable to attend in person, every effort should be made to send an alternate instead and that if this is not possible, attendance via tele-conference is permitted.

David Hendon

Chair

4G/TV Co-existence Oversight Board