



Response to Ofcom consultation:

Manually configurable white space devices

24 April 2015

This response is submitted by Digital UK on behalf of its Members – the BBC, ITV, Arqiva and Channel 4 - the holders of the terrestrial Broadcasting Act and Wireless Telegraphy Act licences.

1. Introduction

About Digital Terrestrial Television (DTT)

Digital Terrestrial Television (DTT) is the UK's most popular TV platform. At the heart of DTT in the UK is Freeview – a universally available service offering a range of more than a hundred free-to-air TV, radio and text-based services. It is watched in more than 19 million homes, three-quarters of the total. Freeview is the sole television platform in more than 10 million homes (40%)

Prior to digital switchover (DSO), more than four million UK households could not access Freeview and elsewhere signal strength was variable. Thanks to industry investment in excess of a billion pounds, switchover made Freeview available to 98.5% of homes.

Viewers are overwhelmingly satisfied with the Freeview service, and post-switchover research demonstrated viewers enjoyed the selection of channels, picture quality and functionality.

About Digital UK

Digital UK supports the UK's terrestrial TV service and its viewers.

The company is responsible for day-to-day operational management, including the Freeview electronic programme guide, and leads on developing platform strategy, working with its broadcast partners and industry. It also provides viewers with information and advice about terrestrial TV channels, services and reception.

Digital UK is owned by the BBC, ITV, Channel 4 and Arqiva

2. Executive Summary

Digital UK welcomes the opportunity to respond to Ofcom's consultation on licensing manually configurable white space devices operating in the UHF TV band.

As we have said in our previous responses to Ofcom consultations on TV White Space (TVWS), Digital UK fully supports Ofcom's drive to promote efficient use of spectrum and Digital UK and its Members are working closely with Ofcom to enable the introduction of TVWS. We believe that, with appropriate licence conditions and a robust interference management regime that adequately protects DTT reception and PMSE operation, the deployment of TV White Space Devices (WSD) offers an opportunity to provide a wide range of new services that would benefit consumers, including the majority of households that receive their television through Freeview.

We have provided responses to the consultation questions below that we hope are helpful in facilitating Ofcom's development of the appropriate licensing arrangements. Given the potential consumer benefits, we recognise Ofcom's desire to enable the introduction of WSDs at the earliest opportunity, and hence the need to exceptionally permit the use of manually configurable white space devices (MCWSDs) within the TVWS framework while WSD technology makes the necessary technical advances to incorporate reliable geolocation functionality. Once this occurs, the need for the transitional arrangements to permit MCWSD will end.

Digital UK intends to continue to collaborate with Ofcom in further developing understanding of the appropriate parameters for protecting consumers' ability to access and enjoy Freeview reception while maximising the availability of spectrum for TVWS. To support this, we encourage Ofcom to ensure that the MCWSD licensing and device registration process captures information that is reliable, up to date and readily auditable and that is also accessible to organisations likely to receive consumer enquiries about TV reception, including Digital UK, the BBC and at800.

We believe that Ofcom should make it clear to the TVWS industry that these are interim licensing arrangements so that focus is maintained on developing devices with geolocation capability and hence able to benefit from the full flexibility of the TVWS framework. We agree that it will be appropriate only to licence Type A devices under this interim arrangement, and we also believe that details of both master and associated Type A slave devices should be recorded on the licence to simplify interference management.

We also recognise that there may be a case for permitting the use of MCWSD for a small number of applications beyond the transitional period proposed by Ofcom. However, we believe that such applications will require a certainty of spectrum access which is not provided by the TVWS framework, making it an inappropriate vehicle for licensing such use. We believe that, should it prove necessary to make ongoing provision for MCWSD, Ofcom should introduce a new formal licence tier enabling manually configurable devices to access TV spectrum on a shared spectrum access basis, subordinate to Broadcasting and PMSE but subject to similar controls, to best manage the use of the spectrum.

3. Response to Consultation Questions

Question 1: Do you agree with our assessment of the likely costs and benefits of our proposal to license MCWSDs as a transitional arrangement? Please provide any available evidence to support your response.

We generally agree with Ofcom's assessment of the categories of likely costs and benefits of the proposal, but it is not possible for us to develop a view on the actual level of those costs or benefits without further information. We note that two areas of particular cost risk are interference management and Ofcom inspection of MCWSD installations. These cost risks can be minimised by ensuring that the framework, licensing and accreditation processes are robust, and that licensees only use well qualified and reputable installers.

Question 2: If you agree that Ofcom should allow MCWSDs to operate in the UHF TV band within the TVWS framework, how long do you believe that the licensing regime would need to be in place?

We accept Ofcom's reasoning for the need to license MCWSDs within the TVWS framework on a transitional basis. We believe that an initial three year licensing period strikes a reasonable balance between enabling the early introduction of TVWS devices to seed the market and allow the benefits of TVWS to be available to consumers as soon as possible, while giving the market time to develop a compliant product. We believe that Ofcom should make it extremely clear to the TVWS industry that these are interim licensing arrangements so that focus is maintained on developing devices with geolocation capability and hence able to benefit from the full flexibility of the TVWS framework.

Question 3: If you agree that Ofcom should allow MCWSDs to operate in the UHF TV band within the TVWS framework, when do you believe it would be appropriate to conduct a review to assess whether there is an ongoing need to license MCWSDs?

It is important for Ofcom both to send a clear signal to the TVWS industry that the pace of development needs to be maintained despite the introduction of this interim licensing arrangement and to confirm the performance of the interim licensing regime. We therefore believe that Ofcom should initiate a review of the efficacy of the regime and progress in development of compliant devices in 18 months to 24 months, leading to a review of the need to continue to licence MCWSDs in 24 months to 30 months.

Question 4: Do you agree with the proposed terms of the draft licence as set out in Annex 5 and as discussed below?

The draft licence terms appear to be reasonable, but we propose minor changes to three clauses in draft Schedule 1 (the numbering below refers to the schedule clauses):

- 3 a) the Licensee should be obliged both to have and follow the written quality assurance process
- 3 c) configuration records should be kept for at least 12 months after licence termination, rather than the 6 months proposed
- 3 f) Ofcom should also have the right to pass compliance information on to relevant third parties as necessary (e.g. the Freeview Advice Line or the BBC)

Radio and Television Investigation Service (RTIS)) for statistical or interference management purposes

Question 5: Do you think it would be beneficial for the licensing regime for MCWSDs to cover both masters and slaves?

We agree that there are foreseeable scenarios where the ability to licence slave devices would be beneficial.

Paragraph 5.10 states that the “person in control of the device would need to hold the licence.” Ofcom needs to make clear what “being in control of the device” means since there are several possible alternatives:

- The individual or organisation actually using the device
- The individual or organisation that owns and installs the device
- The database which allocates or withdraws the frequencies which permit the device to function and which therefore has ultimate control over whether the device can operate

The answer to this question may affect the way the licence is drafted and monitored.

Question 6: Do you agree that our licensing regime should only apply to type A devices?

We agree that the licensing regime should only apply to type A devices, noting that this does not preclude the operation of type B slave devices with geolocation capability in conjunction with a licensed Type A device since in this scenario the slaves are able to operate within the terms of the TVWS framework.

Question 7: Do you agree with our approach to allow a number of MCWSDs under the control of a single licensee to be subject to a single licence?

We understand that licensing each individual MCWSD is more burdensome but do not agree that it is reason in itself to not adopt such an approach, particularly given that the need for this process is a direct consequence of an absence of devices developed that can operate under the terms of the TVWS framework. If there is real demand for access to TVWS then it could be argued that a burdensome approach would incentivise the production of compliant devices in a timelier manner than would otherwise be the case. However, recognising that this approach may be overly burdensome, should Ofcom elect to adopt the proposed approach we believe it is important that good control is achieved and maintained. This will require the provision of timely and high quality data to those who need it, and close control over those permitted to install MCWSDs:

- i. We believe that information about the location of new installations must be frequently provided to Ofcom, preferably ‘live’ or daily but at least weekly, rather than monthly.
- ii. The location data and any other relevant information should also be made available to organisations likely to receive DTT reception complaints from the public, including the Freeview Advice Line, BBC Radio and Television Investigation Service and at800 call centres.
- iii. Ofcom must only licence reputable organisations and insist on robust management and audit processes to maintain control

Nevertheless, we are concerned that allowing a licensee to deploy multiple devices under a single licence, and permitting the use of subcontractor installers, represent significant loss of licence control and we would prefer that each master device or fixed group of master and associated slaves, were individually licensed. Our concern is heightened by the recent reports from the United States of inadvertent or deliberate abuse of the manually configurable elements of the TVWS framework, and we encourage Ofcom to investigate these reports so that any lessons can be incorporated into the UK framework.

Regardless of the adopted licensing approach, we suggest that Ofcom conducts regular and rigorous QA audits of licensees, their subcontractors and all records to ensure that control is maintained.

We note that it may be the case that the draft licence terms need to be augmented to include robust termination clauses to be invoked in the event that the licensed use does not achieve the desired effect or that the licence terms are abused (e.g. by relocating or reconfiguring a device without notifying or obtaining the necessary authority from Ofcom).

Question 8: Do you agree that the proposal for specific licence terms will mitigate the risks posed by the use of MCWSDs?

Our answer to Question 7, above, partially addresses the mitigation of risk. We believe that the risk will be additionally mitigated by the use of specific licence terms.

Question 9: Do you consider the proposed licence terms are appropriate and proportionate?

Digital UK believes that the proposed licence terms are proportionate. We believe they represent the minimum necessary but without answers to some of the questions raised by Ofcom we cannot determine whether they are appropriate.

We note that it may be the case that the licence terms need to be augmented, as discussed in our response to Question 7 above.

Question 10: Do you have any comments on our proposal to require applicants for licences to deploy MCWSDs to supply details of their QA process on application?

Digital UK supports Ofcom's desire to audit applicants' QA processes at the point of application. The proposed licensing regime relies on licensees correctly configuring MCWSDs to ensure that the correct operating parameters are supplied by the Database and so avoiding interference to DTT reception and PMSE operation. Additionally, the interference management process relies on Ofcom being provided with accurate and timely information to Ofcom about the nature and location of MCWSD installations.

We believe that the licences should make it clear to what extent the installation and configuration of such devices can be subcontracted by the licensed organisation, and the controls that such an organisation needs to exercise over its subcontractors.

Question 11: Do you agree with the proposed technical conditions of the draft licence?

On the basis of the available information we believe that the draft technical conditions appear to be reasonable.

Question 12: Do you have any comments on the proposed duration for this licence?

We note that the proposed licence product has no end date and the only way for Ofcom to withdraw a licence would be to serve a notice of termination. This appears to be a more favourable licensing regime than that enjoyed by the primary users of TV spectrum, since multiplex licences have a fixed duration. We suggest that a fixed term licence, with the option to renew, would be more appropriate, particularly given the timetable for the recently announced 700MHz clearance programme:

- 700MHz clearance means that the way in which TV spectrum is used will be undergoing a further period of significant change from now until the programme completes no later than **2022**.
- MCWSD licences will be issued during this period of significant change
- It seems unlikely that Ofcom would serve a termination notice on existing MCWSD licensees before the licence product is phased out. It therefore follows that the earliest date that MCWSD access to TV spectrum could be withdrawn is $3 + 5 = 8$ years for devices licensed at the beginning of the process, i.e. the earliest date on which a licence could be terminated is **2023**, which is after the latest possible completion date for 700MHz clearance.

Licensing a new service on a longer basis than 700MHz clearance would seem inappropriate and while MCWSD access to spectrum could be withdrawn or changed earlier than 2023 under database control, this would not seem to be a reasonable approach. Instead we believe that a shorter MCWSD licence revocation period would be more appropriate; with the ability for Ofcom to revoke all MCWSD licences by **2020** should it prove necessary.

Question 13: Do you have any comments on our proposed licence fee of £1,500?

Digital UK does not offer a view on the proposed licence fee. Ofcom is best placed to determine whether the forecast revenue will cover the relevant costs.

Question 14: Do you have any comments on our proposed five year minimum notice period for revocation for spectrum management reasons?

Our response to Question 12 addresses this question.

Question 15: Do you believe there is likely to be an ongoing need for white space devices that allow some level of manual configuration? Please give reasons for your answer.

It seems likely that manually configurable White Space Devices will be used to provide services which require certainty of spectrum access, e.g. wireless rural broadband links. Therefore Digital UK does not believe that the approach to licensing set out in the Consultation is appropriate in the longer term since it both runs counter to the over-arching philosophy of licence-exempt access to TVWS spectrum and provides no certainty of spectrum access to licensees requiring a minimum Quality of Service to support their business.

If there is a continuing need to license MCWSD beyond the initial period envisaged by this Consultation, then we believe that Ofcom should introduce a new tier of formal licensing, allied to guaranteed spectrum access but subordinate to Broadcasting and PMSE, which

would be more tailored to the nature of the services being provided and hence meet the needs of the licensees and their customers.

Question 16: Do you believe there is merit in exploring allowing enhanced operation through a licensing regime in the future and if so what additional capabilities should be allowed?

Digital UK does not believe that the TVWS framework is suitable for the operation of enhanced TVWS devices. We believe that such devices should be licensed in the conventional way, possibly using the new licence tier proposed in our answer to Q15, above.