



## **SKY'S RESPONSE TO OFCOM'S STATEMENT ON IMPROVING SPECTRUM ACCESS FOR CONSUMERS IN THE 5 GHZ BAND**

### **INTRODUCTION**

1. Sky welcomes the opportunity to respond to Ofcom's statement on improving spectrum access for consumers in the 5 GHz band.
2. Sky is a heavy user of Wi-Fi spectrum. We deploy in-home Wi-Fi in order to connect our broadband customers via our Sky routers. We are also a major provider of public Wi-Fi through our investment in The Cloud. We operate over 21,000 hotspots, and were one of the first major providers to upgrade our access points to support 5 GHz traffic.
3. This experience means we are well placed to comment on the likely future growth of Wi-Fi, and the changes needed to meet this. As Ofcom is aware, Sky has repeatedly highlighted the urgency in making more spectrum available on a licence-exempt basis in order to alleviate current levels of congestion and interference – problems that, absent mitigation, will become exacerbated in the medium term.
4. In this context, we are strongly supportive of measures which will be effective in enhancing spectrum access for Wi-Fi and enabling growth and innovation in new wireless services for consumers.
5. Wi-Fi delivers a range of important benefits. It plays a fundamental role in the wireless data ecosystem as the primary technology which consumers use for data transfer. This role is anticipated to increase as Wi-Fi helps meet the growing demand for wireless data, and in doing so increases the value of applications, both existing and new innovatory, which make significant use of Wi-Fi spectrum. Typically the cost of accessing the internet via Wi-Fi is considerably less than via mobile services, and often at zero cost to the consumer. Alongside this, Wi-Fi offers high data transfer speeds, reliability of connection and widespread adoption in the most popular consumer devices.
6. Sky believes Ofcom's proposals in the statement are unnecessarily restrictive and will do little to address the shortfall in efficient and effective Wi-Fi spectrum that is needed as industry has demonstrated in numerous studies.
7. Areas that Ofcom should re-consider are as follows:
  - (a) Ofcom is only bringing forward proposals for 5725-5850 band rather than the full set of those consulted in May 2016. As set out in our previous submissions on this issue, Sky considers that Ofcom should be prioritising proposals to make available all prospective bands identified in the consultation, and additionally, the 5030-5150 band. This is broadly in line with moves being considered in other territories, and would serve to maximise the potential benefit to consumers.

- (b) Sky is concerned that the 200 mW transmit power limit will effectively restrict the coverage available using this spectrum to a single room, comparing very unfavourably with that available from 2.4 GHz and 5470 – 5730. Ofcom should undertake further empirical work to determine more precisely the actual power level at which harmful interference is caused in realistic scenarios, and set this maximum power level in regulations accordingly. Clearly a higher power level – say between 0.5 and 1W – would be far more useful in alleviating existing congestion more widely, as well as further enabling the development of innovative applications.
  - (c) Studies by Ofcom, Sky and others have shown that the current version of DFS will sterilise much of this spectrum for long periods of time. As such, Sky is disappointed with Ofcom’s proposal to apply DFS to this new Wi-Fi spectrum. In our view there is a strong case for introducing a DSA based solution (as Sky has advocated for previously) or alternatively radically revised rules for DFS which, for example, are based on a substantially higher trigger threshold and allow re-occupancy in a fraction of the current 30 minute time restriction. Adoption of these rules would ensure a more efficient use of spectrum, without unduly interfering with other users in these bands.
  - (d) The additional proposed indoor restriction is in Sky’s view unjustified, given that Ofcom is also proposing a DFS approach along with very low power restrictions. Adoption of all three measures will severely restrict the usefulness of the new band to Wi-Fi operators, limiting the consumer benefit that can be derived.
8. Failure to address these issues leaves Sky concerned that Ofcom is not delivering in line with its duties to ensure the “optimal use” of spectrum in these bands. Sky would urge Ofcom to reconsider its approach, and engage with industry to identify areas of opportunity that will allow deployment of a substantially better Wi-Fi experience.

**Sky**

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