The UK Wireless Internet Service Providers Association

Ofcom Consultation – Improving Spectrum Access for Wi-Fi – Response

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1 Introduction

UKWISPA thanks Ofcom for encouraging input to the consultation on Wi-Fi spectrum. As extensive users of these bands for Fixed Wireless Access (FWA), UKWISPA would like to provide some additional insights and requests for further consideration of spectrum use in this process.

UKWISPA understands that all of the proposed changes are for indoor use and most end users of the FWA products use Wi-Fi for indoor distribution of bandwidth. While considering these two bands there are some additional use cases which deserve consideration;

- increase in the top frequency of the 5725-5850 MHz to 5875 MHz to align more closely with the global use of the this band,
- enable the FWA use case in this 5850-5875 MHz, and
- enable the licensed FWA use case in the new band 5925-6425 MHz.

2 5725-5850 MHz

Removing the need for indoor Wi-Fi to detect DFS is welcome and will improve the reliability of Wi-Fi products in this case.

Consideration should be given to the use of spectrum above 5850 MHz, in particular from 5850-5875 MHz. Originally it was anticipated that this band would be available for FWA and in many countries in Europe this band is available for FWA. Our understanding is that if it was made available, the band (5850-5875 MHz) would not require DFS and thus could be used by FWA operators as a channel to be used immediately after a DFS 'hit' or as a channel to be used in area where many DFS hits are experienced.

Not only do other European countries allow the use of 5850-5875 MHz for FWA but also the USA (FCC) are in the process of changing the upper frequency for FWA to 5895 MHz from 5850 MHz, ensuring that equipment will be available almost immediately to use this band for FWA. It seems appropriate for light licensing conditions to apply.

3 5925-6425 MHz

Allowing indoor Wi-Fi to use the band from 5925-6425 MHz is also welcome and will allow indoor Wi-Fi to achieve the faster speeds that will be needed in the near future.

Consideration should be given to enabling licensed outdoor operation of FWA in this band in a similar manner to the licenses in 3800-4200 MHz. It seems to UKWISPA that you have the data for links in the 5925-6425 MHz band because these are all licensed and the frequency powers dish gains etc. are all known to Ofcom.

Ofcom may think that FWA has more than enough spectrum but the pressure is on to provide gigabit services by one means or another. While 28 and 60 GHz are expected to provide gigabit services, the range will be limited by rain, oxygen and the powers that can be used. In 5925-6425 MHz low cost devices will soon become available enabling very large throughput at short range. Historically FWA system designers have been able to convert such devices for use at long range for gigabit services which are now being mandated by Government.

4 Conclusion

Consideration should be given to FWA light licensed operation in 5725-5850 MHz and licensed operation in 5925-6425 MHz.