

Your response

Question Your response Question 1: Do you agree with Ofcom's proposal to update the Wi-Fi Alliance sup

Ofcom's proposal to update the authorisation approach and technical criteria for SRD data networks in the 870 to 874.4 MHz band? If not, please provide your reasoning.

Wi-Fi Alliance supports Ofcom's proposal to update the authorisation approach and technical criteria for SRD data networks in the 870 to 874.4 MHz band, while noting that this band is subject to <= 200 KHz channels and duty cycle restrictions.

Across the UK, the demand for Internet of Things ("IoT") applications continues to grow. In addition, the range and nature of IoT applications has expanded to applications which combine the power of audio and video with sensors and meters. To provide longer range, lower power, multi-year battery life and connectivity for these types of applications, Wi-Fi Alliance has introduced Wi-Fi HaLow[™], which is the designation for products incorporating IEEE 802.11ah technology. Wi-Fi HaLow meets the unique requirements for the IoT to enable a variety of use cases in industrial, agricultural, smart building, and smart city environments. It also enables the low power connectivity necessary for applications including sensor networks and wearables. With longer range than many other IoT technology options, Wi-Fi HaLow provides a more robust connection in challenging environments.

To realize the full potential of the SRD technologies like W-Fi HaLow, Wi-Fi Alliance encourages consideration of frequency allocations below one gigahertz that would support implementation of >= 2MHz channels with no duty cycle restrictions.

Question 2: Do you agree with Ofcom's proposals to authorise higher power use of 57 to 71 GHz by wideband data transmission systems via a light licensing regime? If not, please provide your reasoning.

Confidential? - N

Wi-Fi Alliance agrees with Ofcom's stated objective of ensuring that the higher power wideband data transmission systems in the 57 to 71 GHz band comply with the International Commission for Non-Ionising Radiation Protection (INCIRP) general public limits. After careful consideration, however, Wi-Fi Alliance recommends alternative approach to a mandatory licensing of the higher power wideband data systems. In considering this issue, first, it is important to recognize that non-compliance with the ICNIRP limits is caused primarily by installers/users who are not aware of their obligation to protect the general public exposure to Electromagnetic Fields (EMF). This problem can be

addressed by requiring equipment labeling that would clearly stipulate the EMF requirements and operator's responsibility to comply with these requirements. Conversely, a licensing regime would do little to inform equipment installers and operators of their responsibilities to ensure compliance with the INCIRP limits. Moreover, such licensing regime would impose unnecessary procedural burdens in terms of costs and delays.

Question 3: Do you agree that the Proposed Regulations would correctly implement the policy decision made earlier this year on extending Wi-Fi to the 6 GHz band, the SRD Decision and, if agreed, the changes to SRD Data Networks in the 870 to 874.4 MHz band?

Confidential? - N

Wi-Fi Alliance supports Ofcom's proposal to implement the policy decision to expand the amount of spectrum available for Wi-Fi by making the 5925-6425 MHz band available for this use and to remove Dynamic Frequency Selection (DFS) implementation requirements in the 5725-5850 MHz band. The evolution of Wi-Fi from a nascent technology to a critical component of broadband wireless infrastructure has not been met by a corresponding increase in spectrum access, despite the widely recognized need to provide additional spectrum capacity to support Wi-Fi and other unlicensed technologies. Moreover, regulatory constraints such as DFS requirement in the 5725-5850 MHz band further restricts Wi-Fi access to much needed spectrum.

As a follow up to this implementation, Ofcom may wish to consider allowing outdoor Wi-Fi deployments on frequency coordinated basis, while ensuring protection of the incumbent operations in the 5925-6425 MHz band. Such deployments entail significant publicinterest benefit. As recognized in Ofcom's Mobile Matters Report, the demand for Wi-Fi is not limited only to indoor or very-low power transmissions. With over twice as many mobile connections over Wi-Fi than cellular and with Wi-Fi delivering the bulk of mobile data, the demand for Wi-Fi in public places is significant and growing. Allowing Wi-Fi access points to deploy in some high-user density outdoor locations (e.g., stadiums, convention centers, shopping malls,) will enable service providers to extend coverage and increase capacity of their networks. Ofcom should also consider that self-coordinated multichannel Wi-Fi systems relying on dynamic random spectrum access and contention based protocols require access to multiple channels to maintain acceptable performance. The current Wi-Fi standard (IEEE 802.11ax, Wi-Fi 6/6E) specifies channel bandwidths of up to 160 MHz, while the next amendment under consideration (IEEE 802.11be Extremely High Throughput) will specify channel bandwidths of up to 320 MHz. The 500 MHz (5925-6425 MHz) does not offer sufficient bandwidth to support the necessary channel diversity for the next generation of Wi-Fi. That is why Wi-Fi Alliance encourages Ofcom to initiate consideration of expanding Wi-Fi access to 6425-7125 MHz band, similar to regulatory efforts in Brazil, Canada, Chile, Mexico, South Korea, US and other countries.

Wi-Fi Alliance supports Ofcom's decision to harmonize technical conditions for the SRD Data Networks in the 870-874.4 MHz band. The harmonized technical conditions for the SRDs, developed collaboratively by the European countries in the European Conference of Postal and Telecommunications Administrations (CEPT), will enable benefits in economies of scale, cross border circulation, regulatory compliance and other areas.