Your response

Question	Your response
Do you have any comments on our proposals?	Confidential? – N Wi-Fi Alliance congratulates Ofcom on being the first European regulator to adopt spectrum regulations to expand Wi-Fi spectrum access to the 5925-6425 MHz band. In making this decision, Ofcom judiciously recognized that, over the last two decades, Wi-Fi has evolved from a nascent technology to a critical component of the UK's wireless infrastructure, but this transformation has not been met by a corresponding increase in spectrum access. Even the 500 MHz (5925-6425 MHz) increase, while significant and much needed, does not offer sufficient bandwidth to support the ever increasing demand for Wi-Fi. In fact, Ofcom's projections indicate that the demand for Wi-Fi will increase by up to 10 to 15 times over the next 10 year period (see Ofcom Improving Spectrum Access for Wi-Fi, Appendix 6, January 2020). That is why, in planning its spectrum efforts for the 2021/22 period, Ofcom should take into account that Wi-Fi devices have become increasingly important in connecting people and devices everywhere. Hundreds of millions of people rely on Wi-Fi to connect billions of devices every day, and studies show this is increasing rapidly.[1/] Devices using spectrum that supports Wi-Fi are now the primary means by which UK consumers connect to the Internet.[2/] This central role will only increase in the future, since Wi-Fi technology will be an essential complement to Fifth Generation wireless ("5G") networks, as highlighted by the recently released Cisco VNI Mobile Report showing that traffic offloaded to Wi-Fi increase with each successive technology generation.[3/] All of this traffic over Wi-Fi-enabled devices requires spectrum capacity. Wi-Fi Alliance's previously released *Spectrum Needs Study*[4/] demonstrated that significantly more spectrum access is required to meet immediate connectivity needs.

1/ *See Wi-Fi Celebrates 20 Years with More Than 20 Billion Anticipated Device Shipments over the Next Six Years,* ABI Research (Jun. 13, 2019) available at: https://www.abiresearch.com/press/wi-fi-celebrates-20-years-more-20-billion-anticipated-device-shipments-over-next-six-years/,

2/ CISCO, *VNI Complete Forecast Highlights Tool*, Asia Pacific, Wired Wi-Fi and Mobile Growth (2016), http://www.cisco.com/c/m/en_us/solutions/service-provider/vni-forecast-highlights.html (select "Western Europe" drop-down menu select "United Kingdom" and check "Devices/Connection and applications" --- note that according to VNI, in UK, there will be 504.4 million wired/Wi-Fi connected devices by 2023, up from 292.6 million in 2018 (11.5% CAGR).

3/ Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2017–2022, White Paper at page 18, available at https://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white-paper-c11-738429.pdf

4/ Wi-Fi Alliance, *Spectrum Needs Study* at p. 23, Feb. 2017, available at https://www.wi-fi.org/downloads-registered-guest/Wi-Fi%2BSpectrum%2BNeeds%2BStudy_0.pdf/33364

	Wi-Fi Alliance appreciates Ofcom's emphasis on the importance of communication services during the Covid-19 pandemic. In this regard, Wi-Fi Alliance highlights two key findings of the Ofcom's 2020 Mobile Matters Report: • "Two-thirds (65%) of the time, mobile devices were connected to Wi-Fi rather than to a cellular network." • "Lockdown also resulted in a dramatic decrease in mobile use in the central areas of the UK's capital cities, as people stopped commuting into these areas and instead worked from home, typically over Wi-Fi." And, Wi-Fi devices are already widely deployed for traditional networking throughout the healthcare industry and are even more heavily used now to meet COVID-related applications. Wi-Fi is well-suited to these dynamic environments because it is one of the most trusted and ubiquitous wireless technologies, offering high performance connectivity, government-grade WPA3™ security, and support for legacy devices. Beyond hospitals and clinical settings, Wi-Fi also offers a solution to the growing personal health and fitness market. Wi-Fi also helps healthcare information technology managers meet the growing connectivity demands presented by both healthcare staff and patients and their families. Next generation Wi-Fi devices (Wi-Fi 6E) offer healthcare facilities a significant increase in coverage, capacity, and efficiency without sacrificing core competencies like interoperability, security and ease of use. And Wi-Fi 6E devices can be particularly effective in handling dense environments with hundreds or thousands of devices requiring connectivity simultaneously. The future of the Internet is more; more traffic, more devices, more services and more applications. WAS/RLANs that use Wi-Fi protocols will be at the centre of this growth. But Ofcom must ensure sufficient spectrum capacity to support this demand and growth. Self-coordinated multi-channel 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. That is why a number of countries are expanding Wi-Fi access beyond 6425 MHz, to the entire 5925-7125 MHz band (e.g., Brazil, Canada, Chile, Japan, Mexico, South Korea, US). Importantly, extensive studies demonstrate that Wi-Fi can operate in the 6425-7125 MHz band on non-exclusive, non-interference and unprotected basis without disrupting incumbent services under similar regulatory conditions that already apply in the 5925-6425 MHz band In light of the above, Wi-Fi Alliance respectfully asks Ofcom to include consideration of expanding Wi-Fi access to 6425-7125 MHz band in the 2021/22 Workplan.