Consultation title	Improving spectrum access for Wi-Fi – spectrum use in the 5 and 6 GHz bands
Representing (delete as appropriate)	Organisation
Organisation name	CommScope

Your response

Question	Your response
Question 1: Do you have any comments on our proposal to open access to the 5925-6425 MHz band for licence-exempt Wi-Fi use?	The availability of a new allocation of wide and contiguous mid-band spectrum is critical to meet the demands for Wi-Fi and other license-exempt RLAN technologies in the very near future. The proximity to the existing 5 GHz license exempt bands means that 6 GHz chipsets and RF front-end modules will be quickly available, and indeed recent announcements from Broadcom and Celeno reflect availability in mid-2020.[1] Ofcom's leadership in opening the 5925-6425 MHz band for license-exempt use will directly and rapidly benefit citizen-consumers in the UK by allowing the use of wider channel bandwidths for Wi-Fi 6 (i.e. 802.11ax) services in their homes, offices, and public spaces – keeping pace with the higher capacities being offered from next generation services in both the fixed and mobile broadband markets. We would further encourage Ofcom to be an "early adopter" and be amongst the first CEPT member states to open this band for operational use. Additionally, we would like to encourage Ofcom to seriously consider also opening the 6425 –

[1] https://investors.broadcom.com/news-releases/news-release-details/broadcom-announces-industrys-most-comprehensive-portfolio-wi-fi and https://www.celeno.com/media-room/press-releases/celeno-adds-wi-fi-6e-to-its-cl8000-product-series-supporting-the-new-6ghz-spectrum-band

	7125 MHz band for licence exempt Wi-Fi use in the near future. As the incumbents are the same in both bands, the compatibility and sharing studies performed within CEPT are equally valid in both bands. Therefore, experience gained in 5925-6425 MHz should, in our view, enable a decision to be made in opening 6425-7125 MHz for Wi-Fi use. Opening up the whole spectrum range from 5925 MHz to 7125 MHz would align the U.K with North America where this is the frequency range currently under consideration by the FCC. We would also like to take the opportunity of reminding Ofcom that some CEPT member states have previously indicated that they could open up the full range on "day one" as they had few if any fixed links or satellite usage within their territory.
Question 2: Do you have any comments on our technical analysis of coexistence in the 5925-6425 MHz band?	We have no further comments on Ofcom's technical analysis other than to note that the conclusions reached for the 5925-6425 MHz bad are equally valid for the 6425-7125 MHZ band, as the incumbent services are the same in both bands. However, we do note the mention of CBTC in the consultation, even though at the present time there are no CBTC systems using the 5.9 GHz band in the U.K. Furthermore, discussion in CEPT surrounding protection requirements for 5.9GHz CBTC systems have currently centred on the use of guard bands up to 5945 MHz. Given the extremely limited roll out of CBTC across the CEPT region we believe the use of guard bands is disproportionate as a solution to the protection requirements of CBTC. In addition examination of the receiver performance of CBTC systems (from ECC Report 301 and CEPT report 71) shows scope of improvement, especially when compared to similar (i.e.IEEE 802.11 based) Wi-Fi receiver performance.
Question 3: Do you agree with our proposal to remove DFS requirements for indoor Wi-Fi up to 200mW from the 5725-5850 MHz band?	We welcome Ofcom's proposal to remove the DFS requirements for indoor devices in the U.K. CommScope also notes that the Czech Republic are considering similar issues and would like to encourage both Ofcom and CTU (Czech Telecommunications Office) to work together

	on a common approach for indoor usage as this will further help drive the equipment eco-system.
Question 4: Do you have any comments on other options that may be available for Wi-Fi and RLANs within the 5 GHz band?	We would like to comment on repeated proposals for expanding DFS requirements to include detection of fast frequency hopping radars. We believe that this is a self-defeating aim that will never end. The more complex the radar signature that is needed to be detected, the higher the likelihood of false detects and the subsequent loss of service. Consideration also need to be given as to why the military use fast frequency hopping techniques. Fast frequency hopping (also known as frequency agility) is used by the radar designer to avoid detection by hostile forces. Requiring consumer devices to be able to detect these highly sophisticated radars is both difficult and ultimately counter-productive because as “easier” detection becomes common place, the radar designers are forced to develop further counter detection techniques and thus we end up in a never-ending cycle of increasingly expensive development with no final solution. In addition, we note that the FCC, in the US, is considering opening the range 5850-5895 MHz for license exempt use, which would make the 160 MHz and second 80 MHz channels usable for Wi-Fi. As Ofcom’s rationale seems to be that removing the DFS requirement in the 5725-5850 MHz range will make Wi-Fi more practical, we believe it is worth noting this FCC action and considering a similar move in the U.K. and “harmonize” with the U.S, making this spectrum even more useful for Wi-Fi as even with removing the DFS requirement on 5725-5850MHz, Wi-Fi will find it only minimally useful as 160 MHz channels (11ax) become the norm.