

Your response

Question	Your response
<p>Question 1. How do you think demand for Shared Access is likely to change in future and why; Which use cases do you think are likely to emerge or grow, and which decline? Please provide a view on the bandwidth you would consider the minimum and optimal requirement for growth use cases, and timelines you would expect for their development</p>	<p><i>Is this response confidential? – N (delete as appropriate)</i></p> <p>Shared Access Licence will be used more as more equipment becomes available. We also feel it will be used more for Fixed Wireless Access than for Major Network Operator (MNOs) use especially in Rural Areas. Wildanet’s response will focus on Rural FWA. Our opinions on shared access licence in urban or industrial settings is not reflected in this response.</p> <p>We consider that the existing 400Mhz of bandwidth is adequate and this band enables 4 x 100Mhz channels.</p> <p>However, the guard bands are too large and restrict the channel usage to 3 x 100Mhz which is less commercially viable. We see no technical reason for the large guard band restrictions, it effectively makes 100Mhz of spectrum void. It would be more sensible to have a small guard band and coordinate with neighbouring frequency users. Our experience is that the frequencies offered can be set up to prevent the use of three channels as the offer may be within 100Mhz of a guard band, further limiting the exploitation of the frequencies.</p>
<p>Question 2. Are there elements of the current framework that complicate the use of Shared Access licences for specific use cases? If so, please provide specific examples and indicate the changes that would be required to facilitate this and how this might co-exist with other use cases.</p>	<p><i>Is this response confidential? N (delete as appropriate)</i></p> <p>The complexity and the length of time it takes to be granted a licence are significant issues with the current Shared Access licencing system.</p> <p>As a commercial entity, Wildanet operates Shared Access licences with a view towards revenue generation – including the very hard to reach areas of Cornwall. Yet presently it takes upwards of 90 days to get a licence.</p>

	<p>Wildanet's experience is that many licences came with incorrect characteristics or without the opportunity to ask for certain characteristics. Wildanet would welcome the introduction of FWA licences that restricts the beam to certain directions. For example Wildanet has a licence for an area near Plymouth where if we had been able to apply for a licence that only radiated in a southerly direction, we would have been able to reduce any possible interference with existing users while still servicing our customer base . Instead we were granted a licence with a power rating so low it is not worth using.</p> <p>The licences are also restricted to medium power, this seems an unnecessary restriction and limits the throughput available to the client.</p> <p>Spectrum would be better used if higher power was available – in the order of 49dBm-52dBm. This would give operators higher range, making the business case more viable awhile allowing for a higher throughput at range giving clients better internet access in more remote locations.</p> <p>Co-existence and interference reduction relies upon communication. It would be helpful if operators could view or be advised of the contacts of neighbouring users. Even better would be a forum/chat facility with Ofcom officials where operators could communicate issues or potential issues in real time.</p>
<p>Question 3. Do you have any comments on the power restrictions currently in place, particularly in urban/high density areas, under the Shared Access licence? Please explain what benefits could be delivered using a higher operating power (e.g. medium power in urban areas), or any concerns you sharing with such operations).</p>	<p><i>Is this response confidential? – Y</i></p> <p>✂</p>

<p>Question 4. Do you have any comments on the exceptions process, and how some of its benefits could be maintained within more standardised and automated assessments?</p>	<p><i>Is this response confidential? – Y</i></p> <p>✂</p>
<p>Question 5. Do you have any views whether and how the coordination approach should be modified? If yes, please provide comments in light of the issues set out above.</p>	<p><i>Is this response confidential? – N (delete as appropriate)</i></p> <p>Wildanet feels that the licencing regime does not allow for effective cross company coordination. It could and should be a collaborative effort that allows existing and new users to communicate preferences with a view to getting the most out of the limited spectrum available. The current systems are too time consuming and assume interference, where future systems should assume collaboration.</p>
<p>Question 6. Do you have views on whether newer or emerging technologies can support coexistence between additional users in the band, and if so, how?</p>	<p><i>Is this response confidential? – Y</i></p> <p>✂</p>
<p>Question 7. Please outline any comments on the current licensing process (e.g. ease of application, time taken, the information we require). If relevant, please note aspects you are currently content with and areas which could be improved.</p>	<p><i>Is this response confidential? – N (delete as appropriate)</i></p> <p>Wildanet feels that the current licencing scheme has serious limitations that prevent operators making the most of spectrum's potential.</p> <p>The primary challenge is that the time to be granted a licece are excessive, with previous licence applications taking in excess of 90 days to be approved. The application itself is also too rigid and doesn't allow for requests on power, direction of beam and frequency planning.</p> <p>Wildanet would like to see a licensing regime that allowed operators to view the available frequencies, state the use, state the power, direction, modulation etc. Ideally an online portal would be created where an operator could identify a location and in real time model their application and pay for it.</p> <p>The longer it takes for a business case to be made the less likely it is to be realised.</p>

	<p>The USA's licencing regime CBRS may be an example of best practice that could be looked at for the UK. Whilst there are too many contributors in the US CBRS, a UK 'CBRS Lite' may be appropriate.</p>
<p>Question 8. Do you have any comments on the suitability of available spectrum for your use cases? Please consider the relevance of the additional bands we are proposing for the framework, and the impact of any limitations on existing bands.</p>	<p><i>Is this response confidential? – N (delete as appropriate)</i></p> <p>Wildanet looks forward to 26Ghz and 40Ghz bands becoming available for 5G FWA. This will make a significant contribution to the tools available for rural ISPs and make more customer choice available.</p> <p>The Sub-3Ghz frequencies will have a place connecting the very hard to reach areas of the UK at superfast internet speeds and should be considered for shared access licences.</p> <p>Although FWA is the primary use for Wildanet in the 5G bands, we are also keen to develop other use cases for future deployments of the spectrum.</p>
<p>Question 9. Do you have any comments on equipment availability limiting deployment options in 3.8-4.2 GHz? Please comment on the impact of any experiences you have had, and where relevant, your expectations for when more equipment will be broadly available across the band.</p>	<p><i>Is this response confidential? N (delete as appropriate)</i></p> <p>Wildanet has experienced difficulty in procuring small scale 5G equipment but has overcoming it by working closely with a manufacturer and is now on its third generation of CPE Radio.</p> <p>Wildanet has found that committing to a single manufacturer is the best way to secure equipment.</p>
<p>Question 10. Do you have any other general comments on the Shared Access framework? Please consider any areas where future innovations could further support Ofcom's policy objectives for this spectrum, and/or improve the experience for users.</p>	<p><i>Is this response confidential? – Y</i></p> <p>✂</p>

Please complete this form in full and return to sharedaccessresponses@ofcom.org.uk