

Your response

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<p>Question 1: What interest do you have in deploying outdoor or standard power Wi-Fi or other licence exempt RLANs in the Lower 6 GHz band? Please provide details of the types of expected deployments.</p>	<p>No Answer</p>
<p>Question 2: Are you interested in providing or developing AFC databases for use in the Lower 6 GHz band in the UK?</p>	<p>Confidential? – N</p> <p>Comsearch is interested in providing and developing AFC databases for use in the Lower 6 GHz band.</p> <p>With over 45 years of unparalleled experience, Comsearch stands as the foremost authority in spectrum management in the United States. As the leading provider of frequency coordination for Microwave and Earth Station systems across the US, we have consistently delivered exceptional services that meet the highest standards of the industry.</p> <p>Our Automated Frequency Coordination (AFC) system extends its innovative solutions beyond the US, offering reliable and efficient services in both the United States and Canada. Comsearch's commitment to excellence ensures that our clients receive the most accurate and effective spectrum management solutions available.</p>
<p>Question 3: Do you have any views on the operational considerations of setting up and running AFC databases?</p>	<p>Confidential? – N</p> <p>Based on the experience of setting up and operating AFC systems for the United States and Canada, Comsearch has learned that a unified AFC solution, alignment of specifications and complete and accurate data on licensed systems are the primary factors required to make operating AFC databases successful.</p> <p>The ability to deploy a unified AFC solution hosted in a single country allows Comsearch to deploy a highly performant system and accept requests for both the United States and Canada. The AFC system determines the country in which the device is located and applies the specifications appropriate to the country. This feature reduces the need for duplicative systems as the 6 GHz AFC market matures. The permission allowed by Canada to host an AFC system within the United States enabled</p>

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	<p>quicker deployment of AFC controlled devices in Canada. Comsearch recommends similar allowance for US hosting of an AFC for the UK as an efficient solution. With our offices within the UK, we would also consider providing AFC services with local hosting if deemed necessary.</p> <p>Alignment of specifications is also important to setting up and running AFC databases. The closer specifications are aligned, the faster it is to deploy to production. We recognize modifications will no doubt be necessary to customize AFC for the UK but recommend that these should be kept to a minimum.</p> <p>A major difference between the United States and Canada is how the licensed system data is managed. While the US FCC issued Public Notices to encourage 6 GHz licensees to make sure their data is accurately reflected on the licenses, Canada's ISED reached out to each of their licensees to confirm operational parameters. The lack of sanitized FCC ULS license data required significant work within the industry on how to handle missing and uncollected data on the operational parameters to be used.</p> <p>One key to maximizing efficient sharing of the 6 GHz band between licensed and unlicensed use is the collection of antenna manufacturer provided radiation pattern envelopes. The FCC's ULS does not collect them and Canada's ISED does. While following ETSI antenna standards should properly protect licensed systems, they will be significantly overprotective compared to using manufacturer provided radiation pattern envelopes.</p>
<p>Question 4: Do you have any views on how we should manage the approval process for AFC databases and, in particular, whether we should rely on parts of the FCC process rather than requiring the whole process to be re-run in the UK?</p>	<p>Confidential? – N</p> <p>Comsearch has a unique perspective on the approval process for AFC databases because of its certification in both the United States and Canada, and its significant participation in developing the specifications and testing of AFC Systems. We are also providing consulting services for implementing AFC systems in international markets. Each country's process for approval is different and has benefits and drawbacks.</p> <p>As stated in the Consultation, the FCC's process involved public consultation, lab testing and a public trial. This approach benefited all stakeholders because it was a</p>

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	<p>new technology. Licensees, spectrum managers, AFC applicants, and device manufacturers all had a say in how to implement and augment the specifications provided by the FCC and then create a test plan, test vectors and expected responses for use by the test labs. The public trial allowed the licensees to gain confidence that the AFC systems would properly protect their systems from harmful interference. The drawback of this approach was the amount of time it took to come to agreement on the augmented specifications and alignment of expected responses.</p> <p>The ISED AFC specifications borrowed heavily from the established specifications in the US and the approval process only involved ISED. There was no independent lab testing or public trial. The AFC System Administrator applicant provided a test plan, test vectors and responses to ISED for approval. ISED was also provided access to the AFC system to perform ad-hoc testing. The benefit to this process was a shorter approval process. ISED also built expertise in evaluating AFC systems. The drawback to this process was that no licensees had access to the AFC system to build confidence and understanding on how licensed systems will be protected properly.</p> <p>Both approaches have merits. In the event that Ofcom chooses to implement vastly different specifications than the US and Canada, or if Ofcom decides that the stakeholders should work together to develop a common set of test vectors and expected results, a multi-stakeholder approach is appropriate for evaluating methods and gaining consensus. However, if Ofcom aligns its specifications closely with the US or Canada specifications and runs its approval process similar to Canada, then the UK could experience quicker adoption and deployment of AFC databases.</p> <p>One thing remains clear, Ofcom has a different geography and set of incumbents than the US and Canada, and proper testing will be required to ensure that the AFC database properly integrates the UK licensed data, digitized terrain and land use classification data. To that end:</p> <ol style="list-style-type: none"> 1. Test plans will need to be developed. Much of the US FCC test plan can be reused and modified as needed for the UK.

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	<p>2. Test vectors will need to be defined. There are several different types of receivers that need to be protected and in different ways depending on relative location between the standard power device and licensed system.</p> <p>3. Expected results will need to be determined.</p> <p>Comsearch recommends that Ofcom should establish test plans, test vectors and expected results either through a multi-stakeholder group or with internal expertise.</p>
<p>Question 5: Please provide any other comments on our proposals for extending access to standard power Wi-Fi and outdoor use, including the overall approach, any details on technical parameters and the running of the AFC databases in this band.</p>	<p>Confidential? – N</p> <p>Comsearch recommends Ofcom consider including height restrictions on where clutter losses can be applied, especially in cases where the device antennas may be above the clutter height, such as on tall buildings.</p> <p>Comsearch is ready to support standard power Wi-Fi and outdoor use within the United Kingdom in the lower 6 GHz band.</p>
<p>Question 6: Do you have any comments on our proposal to use a “phased” approach, or on the alternative to wait for European harmonisation?</p>	<p>No Answer</p>
<p>Question 7: Do you have any comments on the above suggestion to manage any “legacy” Wi-Fi devices, or alternative suggestions?</p>	<p>No Answer</p>
<p>Question 8: Do you have a view on the amount of spectrum that should be prioritised for Wi-Fi under the prioritised spectrum split option? Please provide evidence for your view.</p>	<p>No Answer</p>
<p>Question 9: Do you have any comments on our plan for a “phase 1” when Wi-Fi will be introduced?</p>	<p>No Answer</p>

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<p>Question 10: One variation on “phase 1” would be to only authorise Wi-Fi in client devices to “seed” the market. Would you have any views on this, or suggestions for other variations?</p>	No Answer
<p>Question 11: Do you have any comments on our plan for a “phase 2” when mobile will be introduced?</p>	No Answer
<p>Question 12: Do you have a view on the amount of spectrum that should be prioritised for mobile under the prioritised spectrum split option? Please provide evidence for your view.</p>	No Answer
<p>Question 13: Do you have any evidence or views about the geographical extent of mobile networks’ likely deployment in Upper 6 GHz?</p>	No Answer
<p>Question 14: Do you have any comments on our proposed phased approach to authorisation of both Wi-Fi and mobile in the Upper 6 GHz band?</p>	No Answer
<p>Question 15: Do you have any comments on our proposal to not include very low power portable devices in the Upper 6 GHz band at this stage, but to keep this under review?</p>	No Answer
<p>Question 16: Do you have any comments on our proposal to authorise the use of low-power indoor Wi-Fi access points and client devices to use 6425–7125 MHz?</p>	No Answer
<p>Question 17: Do you have any comments on the proposed technical conditions?</p>	No Answer

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<p>Question 18: Do you have any comments on the proposed VNS draft?</p>	<p>No Answer</p>
<p>Question 19: Do you have any suggestions for an appropriate mechanism for enhanced sensing, or comments on the proposed solution above?</p>	<p>No Answer</p>
<p>Question 20: Do you agree with our proposal to restrict Wi-Fi from transmitting in the 6650-6675.2 MHz band to protect the radio astronomy service? Please provide any technical evidence to support your view.</p>	<p>No Answer</p>
<p>Question 21: Do you agree with our assessment of Wi-Fi coexistence with existing users of the band? If not, please provide details.</p>	<p>No Answer</p>
<p>Question 22: Do you have any evidence about the costs to operators of moving fixed links in and around “high density” areas (such as urban centres) to other bands?</p>	<p>No Answer</p>
<p>Question 23: Do you have any comments on our initial assessment of our likely approach to coexistence between future mobile use and current users in the Upper 6 GHz band?</p>	<p>No Answer</p>
<p>Question 24: Do you have any other comments on our policy proposals or any of the issues raised in this document?</p>	<p>Confidential? – N</p> <p>Comsearch stands ready to collaborate with Ofcom to establish policies and procedures to extend access to standard power Wi-Fi and outdoor devices through the use of AFC databases within the UK. Should Ofcom extend standard power use within the upper 6 GHz band, we are ready to support that as well.</p>