

Question	Your response
<p>Question 1: Do you agree with our proposed technical changes to the licence?</p>	<p>Confidential? – N</p> <p>The proposed in-block changes are concerned merely with how the power levels are expressed; they don't appear to represent a material change per se. However, we note that the permitted in-block transmission power levels of 60dBm EIRP/5MHz are considerably higher than those permitted for other users of the band, notably SAL users who will be limited to the parameters of a medium-power or low-power SAL. While we appreciate that the high power permitted to H3G may have its roots in the historical licence that was granted to Millicom in 1992, we nevertheless believe that this is not consistent with the more recent concept of the 3.8-4.2 GHz band becoming a shared access band.</p> <p>As far as the proposed out-of-block changes are concerned, we believe that the proposed permissive transmission mask, which allows a 49dB (80,000x) increase in ACLR in the middle of the band and extending across the entire band, has considerable potential to result in significant interference to low-power and even medium-power SAL users.</p>
<p>Question 2: Do you agree with our assessment of the impacts of our proposed technical changes to the licence?</p>	<p>Confidential? – N</p> <p>We believe that the proposed changes to H3G's 3.9 GHz licence will have the potential to significantly limit and constrain other users of the 3.8-4.2 GHz shared access band, putting them at a disadvantage and resulting in poorer overall utilization of spectrum.</p> <p>The proposed out-of-block changes are particularly concerning. We believe that the proposed permissive transmission mask has considerable potential to result in significant interference to low-power and even medium-power SAL users. There is clear potential for genuine innovation to be severely limited, and in some cases stifled, as a result of this.</p> <p>As far as in-block transmission is concerned, while we understand that the proposed in-block power is equivalent to the current 3.9 GHz licence and that there should therefore be no <i>increased</i> risk of interference for any other services which operate co-channel with the 3.9 GHz licence, we nevertheless believe that the permitted level of in-block power is very high in</p>

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	<p>comparison with the levels at which SAL users are permitted to transmit, and that Ofcom should consider reviewing this with a view to potentially reducing H3G's permitted in-block transmission power to bring it more in line with that of other users of the band.</p> <p>We note Ofcom's conclusion that the proposed changes to H3G's 3.9 GHz licence may offer consumers greater choice of broadband services, and we agree that this may be true in areas where the only broadband services are based on outdated ADSL technology, for example. However, we believe that in areas where local WISPs use, or plan to use, SALs in the 3.8-4.2 GHz shared access band to provide FWA broadband services, Ofcom would be giving H3G a significant and unfair competitive advantage over such FWA providers. The significantly higher transmission power levels permitted to H3G gives them a competitive advantage over other FWA providers who may be constrained by the limits of medium-power or low-power SALs. Furthermore, the annual cost per deployment that is incurred by H3G for its high-power 3.9 GHz licence is significantly less than the cost which a medium-power or low-power SAL users would have to pay, so here again, Ofcom is, perhaps inadvertently, giving further unfair competitive advantage to H3G.</p>
<p>Question 3: Do you agree with our proposal to introduce a use clause, including the specific timeframes proposed?</p>	<p>Confidential? – N</p> <p>We agree with Ofcom's proposal to introduce a use clause. However, we believe that H3G should reasonably be expected to at least have its plans sufficiently well developed within a period of less than 3.5 years. (We would suggest that 2 years would be a more reasonable period.)</p> <p>Furthermore, we believe that the timescale associated with new assignments that H3G applies for after the initial period should be 6 months, in line with the corresponding use clause which applies to SAL licensees, rather than the 18 months being proposed for H3G, which, again, affords H3G a competitive advantage over other FWA providers relying on SALs.</p> <p>Notwithstanding the above, we believe that short-term SALs for short-term, pop-up events should be granted during the initial use clause period while H3G is still working out its plans for sites in the vicinity. We see no</p>

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	<p>reason for H3G sites to be protected from short-term use during this period when they are not assigned or otherwise in use.</p>
<p>Question 4: Do you agree with our assessment of the impacts of our proposed use clause?</p>	<p>Confidential? – N</p> <p>We agree that, in principle, the use clause will not prevent H3G from deploying the assignments it intends to use, and that it could lead to additional spectrum being made available for Shared Access users who would, in the absence of a use clause, be prevented from using the spectrum indefinitely. However, we believe that the timescales associated with the proposed use clause are overly generous in favour of H3G, and are not consistent with the use clause that applies to current Shared Access Licences.</p>
<p>Question 5: Do you have any other comments on our proposed use clause?</p>	<p>Confidential? – N</p> <p>We note that Paragraph 4.17 of the consultation document defines ‘use’ as the licensee commencing regular wireless telegraphy transmissions from a base station within the specified timeframe and maintaining regular transmissions thereafter. We would be interested to know how Ofcom intends to ensure that such use involves the spectral capacity being fully utilized and not just partially utilized. (N.B. This is a general question that relates to all shared spectrum users, not just H3G.)</p>
<p>Question 6: Do you agree with our proposal to update coordination with Shared Access users to assume synchronisation?</p>	<p>Confidential? – N</p> <p>We agree, in principle, with the proposal to assume synchronisation between users, as this will potentially reduce the required separation distances between networks, thereby increasing the overall availability of spectrum. However, we also believe that it is important that Ofcom retains measures to combat interference and has well-developed RF prediction models to hand. This is especially important for situations in which the frame structures being used by different networks are not identical.</p>

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Question 7: Do you agree with our proposal to remove adjacent channel protections of H3G assignments from Shared Access users?	<p>Confidential? – N</p> <p>Yes, we agree that the risk of adjacent channel interference from a SAL network to the high-power H3G network will be low.</p>
Question 8: Do you have any comments on our impact assessment (to the extent not covered by previous questions)?	<p>Confidential? – N</p> <p>We have no further comments beyond those covered by previous questions.</p>
Question 9: Do you have any comments on our Equality impact assessment?	<p>Confidential? – N</p> <p>We have no specific comments on this.</p>
Question 10: Do you have any comments on our Welsh Language impact assessment?	<p>Confidential? – N</p> <p>We have no specific comments on this.</p>
Question 11: Do you have any other comments on our proposals?	<p>Confidential? – N</p> <p>We have a general concern that by allowing H3G to continue making use of an outdated legacy licence originating from 1992 with significantly higher permitted transmission powers than those available to other users in the band, and at significantly lower cost per radio site, Ofcom may inadvertently be giving H3G a competitive advantage over SAL users who may be trying to offer similar services based on FWA.</p> <p>In Ofcom's SAL guidance documentation, it is stated that FWA is a potential use of the 3.8-4.2 GHz shared access band. This implies that it ought to be possible to deliver FWA services using the 36dBm/5MHz EIRP that is permitted by a medium-power SAL, which raises the question of why H3G should require, and be permitted to use, 60 dBm/5Hz for FWA. Alternatively, if FWA does indeed require transmission powers in the region of 60dBm/5MHz, then this implies that the medium-power SAL falls short of being fit for purpose in terms of facilitating FWA service provision. Either way, there is a clear inconsistency which we feel Ofcom should look to address in order to ensure that the shared access band is genuinely shared on an equitable basis and that certain users are not given competitive advantage over others as</p>

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	<p>a result of their spectrum licences being different in terms of technical conditions and cost per radio.</p> <p>Overall, given previously stated ambitions from Ofcom and DSIT to develop regulation that facilitates increased sharing of spectrum, we are of the opinion that continued use of this outdated legacy licence in the 3.8-4.2 GHz shared access band constitutes more of a step backward rather than a step forward as far as facilitating and encouraging increased sharing of spectrum is concerned.</p>