

Your response

Question	Your response
<p>Question 1: Do you anticipate one or more of the NGSO gateways in these applications will pose coexistence challenges to existing services?</p>	<p><i>Is this response confidential? – Y / N (delete as appropriate)</i> We have not responded to this question</p>
<p>Please provide evidence of the impact of any likely interference in terms of throughput and unavailability.</p>	
<p>Question 2: Do you consider that the measures to enable coexistence with future systems, as set out by the applicant, are reasonable? If not, what are your concerns and to which specific gateway sites do your concerns relate?</p>	<p><i>Is this response confidential? – Y / N (delete as appropriate)</i> See attached document – Mangata Response to Question 2.</p>
<p>Question 3: Could the granting of one or more of these licences prevent your service from operating in the UK or make it less attractive or more costly to enter the market? If yes:</p> <ul style="list-style-type: none"> • Please outline your proposed services, including gateway locations, and indicate when you are planning to start deploying your services. • Please also explain the reasons why granting these licence applications would affect or restrict (i.e. make more costly or less attractive) your future service in the UK. • Please state which of the proposed gateway applications would affect your deployment (if relevant). 	<p><i>Is this response confidential? – Y / N (delete as appropriate)</i></p> <p>[SREDACTED]</p>
<p>Question 4: Do you have any additional concerns or comments regarding this application?</p>	<p><i>Is this response confidential? – Y / N (delete as appropriate)</i></p> <p>No</p>

Question 2: Do you consider that the measures to enable coexistence with future systems, as set out by the applicant, are reasonable? If not, what are your concerns and to which specific gateway sites do your concerns relate?

Mangata Edge Ltd comment on this application as a future Ka NGSO system operator, planning to deploy Ka band User terminals and Gateways.

Ofcom states in its consultation document on these applications made by SpaceX that (reproduced in *italics* and sections of the Ofcom document are also identified below):

2.4 When applying for a licence, we ask applicants to demonstrate:

- a) Coexistence with other NGSO systems: applicants should demonstrate how coexistence is possible between their networks and both:
 - i) existing NGSO systems that are already licensed in the UK; and*
 - ii) NGSO systems that have applied for a licence and whose application has been published for comment**

- b) Ability to coexist with future NGSO systems: Applicants should state what flexibility their system has to achieve coexistence with future networks. This could include the measures they would be able to put in place if another network comes along in the future; it could also suggest measures future networks could reasonably be expected to put in place in order to coexist.*

We note that SpaceX has offered a generic narrative on some measures available to achieve coexistence with future NGSO systems but without providing any technical assessment on the deployment of such measures and the level of coexistence that can be achieved (in terms of meeting long term and short term interference criteria). We also note that SpaceX has not offered any technical interference assessment to demonstrate the coexistence with other NGSO systems already licensed by Ofcom.

We read Ofcom's guidance in Section 2.4 a) i) of the Consultation document (reproduced above), and also instructions given in Ofcom's Non-geostationary satellite earth stations, Licensing guidance, dated 10 December 2021, as requiring the applicant to offer technical assessments on coexistence rather than a narrative on coexistence. For instance, the coexistence assessments could be presented as cumulative distribution functions (CDF) of the interference-to-noise ratio (I/N) for varying percentages of time. We note that such assessments have been offered to other administrations (example USA FCC) by NGSO operators and they have been made publicly available by those administrations.

Had SpaceX offered required technical assessments regarding NGSO systems already licensed by Ofcom, we could have made a judgment, using such assessments, on achieving similar coexistence with future system. Since this is not possible, we are unable to comment on SpaceX's ability to coexist with future systems based on the submission made to Ofcom for any of the proposed gateways in the UK. As mentioned above, since we plan to deploy UTs throughout the UK, we urge Ofcom to seek necessary assurances on coexistence for all gateways SpaceX plan to deploy in the UK, noting that SpaceX plans to deploy gateways in

major conurbations in the UK.

We are currently studying the technical aspects of the SpaceX's Starlink system to assess the possibility of coexistence, deploying certain interference mitigation techniques where necessary to achieve coexistence. Our initial studies show that such coexistence may be possible as long as the operators are able to deploy available interference mitigation techniques.