

Alcatel Lucent contribution to the Ofcom consultation on “Authorisation of terrestrial mobile networks complementary to 2 GHz mobile satellite systems”

1 Introduction

Alcatel Lucent welcomes the opportunity given by the Ofcom to provide a response to its Public Consultation on Authorisation of terrestrial mobile networks complementary to 2 GHz mobile satellite systems.

Alcatel–Lucent Mobile Broadcast (ALMB), complements the contribution of Ofcom to explore the particularly innovative and complex regulatory domain of hybrid satellite and terrestrial infrastructure.

The current consultation is a key element to shaping the UK regulatory framework applying to those systems and being the first in Europe, and will undoubtedly inspire other European National Regulatory Authorities in their effort to defining specific conditions for the deployment of CGC in the framework of the European Selection and Authorisation Process currently being adopted by the European Parliament and the Council.

ALMB proposes the following comments and analysis in the hope of providing a constructive contribution to the process.

This contribution includes this document which could be published and the attached confidential annex which is for the exclusive use of Ofcom and should therefore not be published.

2 Answers to questions

Question 1: Do you agree that the CGC licence should be in the form of a spectrum access licence with standard terms and conditions?

We believe that beside the standard terms and conditions, particular terms should include a reference to the fact that CGC base stations are considered to be integral part of the mobile satellite service and that frequencies used by the CGC network need to be managed by the same system that controls the frequencies in the associated MSS system.

Furthermore, in accordance with section 7.15 of the consultation document, the licence should be granted for a period of time coinciding with the period for which the associated mobile satellite system will be authorised to use the frequency, as a result European Selection and authorisation process.

Question 2: Do you agree that such licences should be awarded on a UK-wide basis?

Yes, we agree with the grant of a right to cover the whole of the UK, without coverage or quality of service obligation.

The objective of complementary ground component is to strengthen the quality of the service, within the territory of member states included in the service area committed by the selected applicants, and where communications between the mobile stations and the satellite segment cannot be ensured with the required quality.

To that extent, we believe that CGC licences should be awarded to all candidates selected under the European Selection and Authorisation process, on a UK-wide basis, and provided that the UK territory is entirely or partially included in the committed service area of the candidates.

Operators should, however, be free to decide on the need and the extent for CGC roll out.

Question 3: Do you agree that the CGC licence should authorise the complete set of frequencies assigned under the EC process?

This approach is supported since, although not all authorised frequencies may be used for CGC in the UK, the MSS operator would need access to the full pool in order to manage the network in the most efficient way.

Question 4: Do you agree that the initial grant of the CGC licence should be made to the MSS operator only?

By definition, as stipulated in the Decision 2007/98/EC dated 14 February 2007, a CGC is “an integral part of the mobile satellite system and (...) be controlled by the satellite resource and network management system”. A CGC licence is therefore necessarily linked to one of the systems selected under the European Selection and Authorisation process, and, by way of consequence to its operators.

Yet the necessity of such a link does not imply that the CGC licence holder should be the MSS operator.

We suggest that any party who can demonstrate that its proposed CGC shall be controlled by the satellite resource and network management system of a selected MSS system is indeed complying with the condition.

We would therefore propose that a CGC licence could be granted to any candidate CGC operator who complies with the following conditions:

- The candidate CGC operator provides evidence that it has an exclusive agreement with one of the selected MSS operator to deploy the CGC using a given fraction of the bandwidth granted to the considered mobile satellite system.
- The candidate CGC operator provides evidence that its proposed ground system constitute an integral part of one of the selected mobile satellite system and shall be controlled by the satellite resource and network management mechanism of such mobile satellite system; and in particular that it shall use the same direction of transmission and the same portions of frequency bands as the satellite component and shall not increase the spectrum requirement of the considered associated mobile satellite system

Question 5: Subject to certain safeguards, would it be appropriate to license the CGC in advance of the satellite service coming into operation and if so, what criteria should be applied to determine whether the satellite component of the MSS network is operational and what period of time do you consider would be appropriate?

With subquestions

** should Ofcom license the CGC in advance of the EC selection and authorisation procedure?*

** should the CGC be licensed before the satellite component of the MSS system is operational?*

• what criteria should Ofcom apply to determine whether the MSS is operational?

Because of the necessary link between a CGC licence and the satellite segment to which it is associated, we believe that Ofcom cannot issue such a licence before knowing the result of the selection process. Yet, as stipulated in the Decision 2007/98/EC dated 14 February 2007, this would not prevent Ofcom to grant a licence for this spectrum for Any non MSS use of these bands provided that such non MSS use would not cause harmful interference to systems providing mobile satellite services and might not claim protection from harmful interference received from systems providing mobile satellite services.

In order to accelerate the bringing into use of the spectrum we believe that it would be appropriate to grant CGC licences as soon as the result of the European Selection and Selection Process is known, i.e. immediately after the publication of the Selection Decision by the Commission (n.b.: according to the draft Art 95 Decision the Selection Decision is the instrument by which the result of the selection process shall become material).

If the Art 95 eventually adopted is in conformity with the text adopted by the ITRE committee of the European parliament, any selected MSS operator will have the obligation

to start the Provision of satellite service within the territories of the EU Member States within 22 months from the date of publication of the selection decision.

We then propose that, symmetrically, in case a CGC licence is granted before the satellite component to which it is associated is operational, then such a licence could be revoked if the considered Satellite component is not operational 22 months after the publication of the Selection Decision.

Question 6: Do you agree that the CGC licence should not include a coverage obligation?

In consistence with the reply to question 2, ALU agrees with Ofcom that coverage obligations are unnecessary in the CGC licence

Question 7: Do you agree that the CGC licence should be provided on a service and technology neutral basis?

As far as SAP REG is aware of, candidate operators are interested in a variety of services, ranging from broadcast service, mobile TV to bidirectional broadband or narrowband access services or even a mix of these. It is therefore opportune to issue service and technology neutral licences.

Question 8: Do you agree that CGC licences should be tradable and, if so, that they should be both totally or partially tradable and both outright or concurrently tradable, that Ofcom's consent should be required for transfers and that the grounds on which Ofcom may withhold consent should be limited as proposed?

We agree that CGC licences should be totally or partially tradable as well as both outright and concurrently tradable. We fully concur with all arguments and proposals presented in chapters 7.22 and 7.23 of the Ofcom consultation document.

We agree that Ofcom's consent should be required for transfers and that the grounds on which Ofcom may withhold consent should be limited as proposed.

Question 9: Do you agree that AIP should be applied to CGC licences at a rate that reflects the associated opportunity cost?

Question 10: Do you agree that the licence fees should be set at around £554,000 per 2 x 1MHz?

Question 11: If you believe that setting fees at this level would result in CGC systems not being deployed, please provide your reasons and full supporting evidence including a detailed business case.

We agree that given the specificities of the 2 GHz MSS band AIP is the most appropriate way of setting fee for the use of this spectrum.

We however consider that in setting the AIP fee, due consideration should be given to both the material situation arising from the existence of the European Process, and to the intrinsic uncertainty associated with operating a mobile satellite system

1. Situation arising from the existence of the European process

We recognise that this spectrum could be used for other purposes and that, as indicated in 8.27 of the consultation document the constraint imposed by the EU for the use of the spectrum could be alleviated over time. Yet, for a period of at least 15 years starting from the time of the publication of the Selection Decision, the EU will no longer be in a position to modify the use of this spectrum by MSS. This will even be more the case when an MSS operator or a CGC operator will apply for a CGC licence, since such an application will express the real maturity of the considered program and therefore the fact that the obligation of the MSS operator in terms of opening the service are extremely likely to be met.

At the time when operator will apply for CGC licence, OFCOM will therefore be bound to consider that the use of this spectrum is definitely reserved for MSS for a period of approximately 15 years, and therefore that the reservation of the spectrum for MSS is no longer an externality but rather an essential characteristic of this spectrum.

The opportunity cost would therefore be defined with reference to the best alternative use of the spectrum as MSS.

2. Uncertainty associated with operating a mobile satellite system

We have created and are maintaining a business plan corresponding to the provision of mobile TV service by an operator of an end to end mobile TV platform based on a mobile satellite system. This business plan, as summarised in the attached confidential annex, includes the analysis of a large number of various scenarios. From that business plan we can draw 2 main conclusions.

- The analysis shows a high variation in the cumulated cash flow NPV calculation depending on the scenarios, which is the material translation of the high risk associated with operating such a system.
- The spectrum fee as indicated by Ofcom is impacting the expected 10 years payoff by 26 % to 46 %.

From 1) and 2) above we conclude that:

The specific situation created by the European process for a stable period of approximately 15 years cannot be ignored in setting the opportunity cost for MSS. The level proposed by Ofcom corresponding to the use of spectrum at around 1800 MHz corrected in terrestrial only system should therefore be corrected to take into account the specificity of MSS.

The correction in AIP should aim to compensate the uncertainty specifically associated with the operation of Mobile Satellite Systems. Alcatel Lucent proposes that the AIP fee for MSS be set at a level that would not impact expected payoff by more than £ 10 m corresponding to an AIP fee of £ 140 000 per 2 x 1 MHz and per year.