CABLE&WIRELESS RESPONSE TO OFCOM CONSULTATION ON FREEDOM4 LICENCE VARIATION

20TH JULY 2009

Cable&Wireless

Cable&Wireless is one of the world's leading international communications companies offering a full range of services. Satellite services form an important part of our portfolio supported by two satellite earth stations in the UK. This capability represents a significant investment and it is used to provide mission critical services to our customers.

Ofcom's consultation considers a request by Freedom4 to vary the conditions of its spectrum licence covering the same frequency bands that are used for satellite services. Ofcom asks:

> *Are there any reasonable grounds why Ofcom should not grant Freedom4's request to vary its licence as soon as practicable? If so, please explain your reasoning for this*.

Cable&Wireless believes that the variations as proposed give rise to significant risks to existing licensed users of spectrum. As the proposals stand insufficient measures have been taken to ensure that these risks are addressed in a manner that is absolutely clear to all stakeholders. Therefore, Cable&Wireless does not believe that Ofcom should grant this request until it has been amended to provide adequate clarity and security to existing users of spectrum.

The concerns raised in this response are not specific to Freedom4 but relate more generally to the approach taken by Ofcom to balance the needs of spectrum users in order that they can co-exist. In the future it is likely that other operators will look to deploy similar wireless technology and therefore Ofcom's approach in this case will have a bearing on other similar cases. Ofcom should take this into account within its final decision.

Specific Concerns

The requirement to co-ordinate

The proposals include some changes to the requirement to co-ordinate which are not clear. In the explanatory document Ofcom explains that there would no longer be a requirement to co-ordinate lower power terminals however the wording used with the document and the variation leaves the situation ambiguous. We are concerned by the potential for mobile stations to used in a manner in which they could practically be considered to be central stations.

Ofcom should ensure the variation makes it absolutely clear that:

- All central/base stations, whether permanent, temporary or for 'special events' and whatever their power, should be subject to the requirement to co-ordinate;
- No central/base stations should be allowed to operate from a mobile platform where that would prevent proper co-ordination being undertaken in advance;
- The co-ordination process to be applied is clear. The new wording, in place of that used in Annex 6 of the existing licence condition, refers only to the procedure notified by Ofcom but the details of that procedure are not clear. We request that Ofcom make it clear and that it adequately covers the points raised in this response.

To date the co-ordination process has worked successfully. This variation not only increases the maximum power allowances but also allows the use of mobile terminals both of which change the requirements for co-ordination for existing and future central stations.

The use of mobile terminals increases the risk to existing FSS users

Ofcom's view is that as long as the central stations and other high power terminal stations are co-ordinated there is no requirement to co-ordinate low power terminal stations. Cable&Wireless is concerned that this statement is overly simplistic. In practice the inclusion of mobile terminals makes the co-ordination process much more complicated.

For example interference could occur where the base station is located in a valley that provides shielding to an existing Earth station. The mobile user could be at the top of a hill in good view of the base station but would also be in line of sight to the earth station. Further, the proposed increased power from the base station will allow greater distance to a mobile and increase the probability of interference. Where the base station is being used for a special event (which could be close to an existing Earth Station) a scenario could exist where multiple mobile users are continuously trying to connect to the base station and causing unremitting interference.

In its analysis Ofcom refers to the UK paper submitted to the ITU but this paper does make it clear that there is a risk of interference from mobile terminals and that very careful co-orientation is required to minimise this risk. It also makes it clear that there will be areas close to earth stations where broadband wireless access cannot be provided, and quite clearly the size of those areas will be larger where mobile terminals are allowed than where they are not. It does not state that the risk can be avoided.

The locations of satellite earth stations have been carefully selected to avoid interference and they represent significant investments that are permanent and unmoveable. An increased risk of interference is not in the interests of consumers, some of whom have mission critical services that rely on satellite infrastructure. Neither is it in the interests of the companies who have invested, or intend to invest, in infrastructure that could be significantly devalued by interference from other users. For these reasons Ofcom must ensure that it puts in place adequate controls to protect existing users of spectrum.

In this respect we suggest Ofcom uses a combination of the following:

- Explicitly makes clear that the co-ordination process for base stations will take into account the potential for interference from mobile terminals; and

- Includes a requirement for co-ordination of terminals stations where the central/base station is within 10km of a satellite earth station.

Extending of the variation to the upper band is in contravention of EC regulations

Only the lower block (3605MHz to 3689MHz) falls within the band below 3.8GHz considered in the EC Decision however the document suggests that the upper block (3925MHz to 4009MHz) should also have the same mobility, power and out of band emissions criteria applied. This alters the current timetable previously set out and puts un-reasonable commercial pressures on other users of the upper band. We see no justification in any European Commission committee decision or Directives for extending this licence variation to frequencies above 3.8GHz.