

## **Introducing Recognised Spectrum Access**

### *1. Summary*

T-Mobile (UK) strongly believes that there is currently no need for the introduction of RSA. The proposal may not promote efficient spectrum use as it may lead to band fragmentation. In addition, the current proposal is unclear and needs further definition. This should include making the text in clauses 115-118 of the draft Communications Bill more precise and issuing a further consultation document on this subject if the Government is to proceed with the proposal.

Issues which must be clarified include

- The extent of interference protection offered under RSA. Would it be more or less than is now provided informally? Would this vary by service?
- The factors defining the interference protection offered under RSA.
- The relative status of RSA versus licensed use.
- The approach to resolving interference disputes between users with RSA and licensees.
- The services RSA will be applied to initially, the services that will not (ever) be granted RSA and the process for deciding which services might be granted RSA.
- In the case of satellite services, who would be eligible for the grant of the RSA, the operator or the party contracting for the downlink.

T-Mobile (UK) would like assurances from the RA that RSA will not be

- Provided to services that are licence exempt.
- Provided in circumstances where existing licensees could be materially disadvantaged, either in competitive terms or in terms of interference protection (now and in future).

### *2. Introduction*

This is T-Mobile (UK)'s response to the Radiocommunications Agency (RA) consultation document *Introducing Recognised Spectrum Access, July 2002*.

We have structured our response as a discussion of issues relating to the definition of recognised spectrum access (RSA), namely

- the protection offered under RSA,
- services that may opt for RSA, and
- the impact of RSA on existing licensed spectrum users.

Neither the consultation document nor the draft Communications Bill gives a clear definition of RSA or a clear explanation of how and where it might be implemented or what its purpose is. Until there is greater clarity in these respects we cannot answer the questions asked in the consultation document.

Given the lack of clarity as to the purpose of an RSA and any real justification for the creation of such a right and the likely uncertainty as to its impact on wireless telegraphy regulation, T-Mobile (UK) is strongly opposed to the introduction of such a right.

Our objections to RSA go beyond a lack of clarity in the proposal. T-Mobile (UK) believes there are strong reasons why RSA should not be introduced. As the RSA is likely to be used in shared bands the only practical way to protect large numbers of terminals, such as VSATs, is to segment the relevant band, which will lead to spectrum inefficiency and be contrary to one of OFCOM's proposed duties of encouraging optimal spectrum usage.

While it might be argued by the RA that the RSA provides a mechanism to improve spectral efficiency by facing satellite operators with the opportunity cost of their spectrum use<sup>1</sup>, this argument only holds if satellite operators do take up RSA (which we suggest below is unlikely) and if operators do not opt for RSA OFCOM is prepared to allow them to be caused harmful interference by using the spectrum they occupy for terrestrial services (an outcome we think is highly unlikely). Hence we do not believe that RSA will support OFCOM's duties to encourage optimal spectrum usage.

### *3. Protection offered by RSA*

International co-ordination procedures should ensure that transmissions from outside the UK do not cause harmful interference to licensed UK services, however, this does not give any formal rights to transmissions from outside the UK of protection (from harmful interference) from UK terrestrial transmissions. We understand that RSA will formalise the extent of interference protection currently given informally in the UK to transmissions from outside the UK, but we would like this confirmed. We note that Intellect has pointed out that a second satellite operator using the same frequencies but a different orbital location would be able to obtain the benefit of RSA without payment and agree that this will create a competitive imbalance. This would appear to be the justification for limiting the types of satellite use which could be protected by RSA, if introduced.

Under clause 115(3) of the draft Communications Bill the grant of recognised spectrum access is stated to be with reference to factors as OFCOM considers fit, including frequencies, times and places of reception, and strength and type of signal. It is important that the Bill makes clear whether this list is exhaustive. We recognise that there needs to be flexibility given the range of services supplied just by satellite, but without some definition the scope of the right and the consequences of its introduction are unclear. The very different uses to which the right will apply will mean considerable administrative effort in defining the right and ensuring that unintended consequences of providing protection, like the "free rider" problem described in the example given above are avoided. This will make it an expensive right to introduce, and this expense, coupled with RSA being optional, argues against its introduction except in very limited circumstances. It will also be limited to the

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<sup>1</sup> This argument was put forward in the Cave Report (Chapter 8) in support of spectrum access licensing, a concept very similar to RSA.

UK, which is contrary to the requirements of EU law that OFCOM contribute to the development of the European internal market and the spirit of the draft Communications Bill which aims to assist in the harmonisation of communications regulation across the European Community. It may also make international co-ordination more complex than at present.

The consultation document discusses how in return for formal protection users will be granted security of tenure, RSA would be tradable and interchangeable with licences, users may need to bid for RSA and users would be subject to administrative incentive pricing or charges to cover the RA's administrative costs. In effect the regulatory arrangements for licences will be applied to RSA. Despite this the Government's intention appears to be that the rights will not be same<sup>2</sup>. Paragraph 4.1 of the consultation document refers to RSA and licences being tradable or interchangeable. This would seem to indicate that RSA had parity with licensed spectrum use. This is clearly not correct as the RSA is only a co-ordination/protection right. Legally the RSA cannot be given parity, as this would be an interference with the property rights of licensees and contrary to the rights which the Government must protect under the Human Rights Act 1998.

#### *4. Services that may opt for RSA*

The range of services that might be granted RSA is not clear. The draft Communications Bill is drafted in general terms and does not place limits on the services that may be protected under RSA. The consultation document states that RSA would be

- “extended to services that cannot be licensed” (paragraph ii),
- “applied to a variety of services” (paragraph 2.3), and
- “introduced selectively” (paragraph vi).

The consultation document mainly discusses the application of RSA to satellite transmissions to UK based terminals, however, it is not clear which party would be granted RSA – the satellite operator or those with contractual rights to transponders actually providing the service, like VSAT network operators or BSkyB. The diversity of satellite services and the consequent diversity of types of RSA which would need to be devised must be a strong argument against the introduction of such rights.

It is also unclear whether reception of foreign terrestrial transmissions, that may or may not be intended for the UK, might also be granted protection under RSA. For example, would foreign broadcasting transmissions (such as Atlantic 252, a radio station aimed at the UK market using an Irish frequency allocation) be able to apply for protection under RSA. To grant protection would give de-facto recognition to an unlicensed broadcaster, which is contrary to the prohibitions in the Broadcasting Act 1990.

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<sup>2</sup> The consultation document describes RSA as an optional complement to licensed spectrum use having many of the characteristics of licences and as “available for transmissions outside the UK intended for reception in the UK (although it might also be available in other circumstances)” (paragraph 2.2).

T-Mobile (UK) is concerned that RSA might be used to give protection to services currently classed as licence exempt. We note that the consultation document mentions use of RSA to give protection to VSATs which are currently licence exempt. This would discourage use of such bands and innovation. T-Mobile (UK) would like an assurance from the RA that RSA will not be used to give protection to services that might otherwise be classed as licence exempt. Such services should be licensed if they are to receive interference protection.

The bands suitable for RSA listed in Annex B of the consultation document include some in which there is only satellite use (e.g. 12.5 to 12.75 GHz, 19.7 to 20.2 GHz). Procedures for international co-ordination of satellites should ensure that there would be no harmful interference between satellite transmissions in these bands. It is therefore not clear what advantage there would be from RSA for a satellite network operator in these cases, unless perhaps an uncoordinated satellite was able to receive interference protection from other satellites by being granted RSA. This consequence would appear to undermine international co-ordination and have the disadvantages of having two administrations concerned with potentially different interests, one protecting the satellite operator it has licensed and the other protecting the holder of an RSA would outweigh any advantage. We would welcome clarification on this point.

#### 5. *Impact on Existing Licensees*

T-Mobile (UK) believes it is important that RSA does not adversely affect existing licensed users. If RSA simply formalises the current *de facto* position in terms of interference protection then in the short term at least existing users should not experience any change in circumstances. Indeed if there is no change then it is not clear why a user would opt for RSA.

RSA fixes the interference protection offered to the user for a specified time period. This reduces the RA's flexibility by removing the option of offering the user less protection, say, to accommodate more licensed use in the band. This is one way that licensed users may be adversely affected by RSA. Perhaps more importantly RSA may permit unfair competition for existing services, in the sense that operators with RSA may have less onerous licence obligations than licensed operators, or, if an RSA applies to licence-exempt users, with close competitors. For example, 3G operators may find themselves in competition with providers of mesh networks. The potential anti-competitive consequences of permitting some satellite operators to benefit from an RSA right held by another operator have also been mentioned above.

The impacts of RSA will vary by service and frequency band. For this reason, if, despite our submission, RSA was introduced it must be introduced gradually on a case-by-case basis involving detailed appraisal of and consultation on the impacts and the demands in each case. The expense of doing so may not be justified for an optional right. Initially it would be preferable if RSA were only considered in some of the cases suggested by Government in the policy paper accompanying the draft Communications Bill, such as astro-physics.

**T-Mobile**  
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