UMTS Forum

Title: Response to the RSPG Consultation on secondary trading of rights to use radio spectrum

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UMTS Forum Response
to the RSPG Public Consultation
on secondary trading of rights to use radio spectrum

The UMTS Forum congratulates all the national and EU institutions which are members of RSPG for their interest in spectrum issues in general, and for this consultation on transfers of rights to use spectrum in particular.

Although the Forum represents an important group of spectrum users, it does not represent all categories. Nevertheless, the UMTS Forum gathers all the kinds of players involved in third generation mobile systems, including equipment manufacturers, operators, administrations, service providers and software developers.

General questions

1) Do you consider secondary trading of rights to use radio spectrum to be beneficial to consumers, businesses and radio users? why/why not?

As stated by the framework directive (Recital 19), "*Transfer of radio frequencies can be an effective means of increasing efficient use of spectrum, as long as there are sufficient safeguards….".* The UMTS Forum supports this view. Rights transfers can definitely bring more flexibility, and thus, all other things being equal, improve the usage of spectrum.

a) Prerequisites for being beneficial

Efficiency is increased especially where transfers of rights take into account all available dimensions of spectrum occupation, i.e. time, space, frequency agility, etc.. Transfers of rights would be less beneficial if they were performed within the constraints of a traditional monolithic type of assignment. Therefore, transfers work only if accompanied with flexibility.

On the other hand, the desirable flexibility is constrained by the technical capabilities of existing systems and technologies, and by the need for economies of scale. This is why a substantial need for harmonisation of radio interfaces remains. Highly flexible right transfers may be feasible between adjacent (or near adjacent) bands using the same technology. Especially if this implies no, or little, new equipment for the spectrum recipient. This would be a category of simpler cases to start with.

The Forum suggests to depart from the usual pattern of a single standard being developed in a given band.. Co-ordination between standardisation organisations (e.g. in ETSI, 3GPP, etc) and authorities in charge of spectrum regulatory harmonisation (CEPT, RSCOM, etc…) might allow some more technology neutral frequency band allocations and thus lead to a wider choice of technologies in a given band.

The Forum also suggests to take into account, in the early stages of future standardisation, secondary trading of rights to use radio spectrum and thus increase the flexibility of spectrum engineering, e.g. a certain divisibility of frequency blocks, changes in time, space, according to uses, types of traffic.

b) Limits of benefits from transfers of rights

Authorities should check that they monitor transfers in cases where strong scarcity, rigidity[1] or market circumstances could push prices up to high levels comparable to those experienced with some past auctions (e.g. hoarding etc.)

2) What types of transfer of rights to use radio spectrum (full, leasing, partial etc.) do you consider can be beneficial to consumers, businesses and radio users? why/why not?

We understand that:

- a "full" transfer is one which has no end in time, the previous holder relinquishing forever all rights and associated obligations, i.e. a "permanent" or "perpetual" transfer (being understood that probably most Member States will keep in theory the possibility of recovering the related spectrum, under their own legal framework for compensation/compulsory purchase)

- "leasing" is a transfer which has a predetermined date of termination where the rights return to the original holder. A lease for a sequence of separated time slots also seems possible (certain months of the year, specific day(s) of the week, time slots…).

- "partial" characterises a transfer in which all the rights or/and obligations are not entirely transferred to a new holder, whether permanently or not .

- However, in the "full" transfer, all the obligations may not be transferred to the new holder (under NRA supervision). Possibly, some obligations may disappear, or even (but more rarely) new ones be imposed by the NRA, due to specific circumstances. Furthermore, some rights may disappear or new ones be granted.

- the above changes of rights and obligations could also happen in a partial transfer…

This is why the answer to this question 2 ("which type would be beneficial") is a complicated issue. The answer to it probably depends on which of the above scenario you are in, and the particular circumstances of each case. In the end, this should be left to market players to select the most suitable type of transfer for each particular case, provided they are well informed of what the NRA allows or restricts. **A way forward is proposed at Question 16.**

3) What rights and associated obligations do you consider should be within the scope of secondary trading of rights to use radio spectrum?

As regards rights, they remain basically the right to transmit, and the right to receive without being interfered with.

As regards obligations, although the new regulatory package has reduced the number of allowed types of obligations, they remain many. Annex B and part of Annex A of the Authorisation directive define a substantial set of possible obligations directly attached to individual rights of use. Furthermore, within the EU framework, there is a principle that any obligation always has to be justified by one (or several) public policy objective(s). This includes obligations pursuant to remedies applied to SMP operators. Therefore in principle, the source or "raison d'être" of obligations seems independent of secondary trading of rights to use spectrum . The obligations are related to the use of frequencies and aim to:

- avoid harmful interference;
- to achieve a certain universality of service (coverage etc.);
- limit the market dominance of the transferor and recipient;
- respect international obligations such as ITU-RR for example;
- EU legislation (e.g. GSM directive, etc.).

[1] Spectrum which for technical reasons is not (or hardly is) dividable in time, space, bands…

…

As a result, it seems difficult to specify what "should be excluded" or "included" in the rights and obligations, especially since remedies applied to SMP operators can be chosen among a wide variety of constraints. The only core point is that a right to transmit and a right not to be interfered with, are the minimum without which a secondary trading of rights to use radio spectrum makes no sense.

4) Would you want to see secondary trading of rights to use radio spectrum introduced in your country or in the countries of interest to you?

a) If yes – why, to what extent?

In the current context of development of Information Society or Knowledge-based Society, the spectral resource is becoming more and more in demand. Insofar as secondary trading of rights to use radio spectrum can contribute to increased adequacy between spectrum supply and demand, and allow the more rapid changes needed by the market, our organisation favours its introduction throughout the Union.

This being said, contrary to the Spectrum Decision 2002/676 which covers any spectrum from 9 kHz to 3000 GHz, the Framework Directive 2002/21 and the other specialised Review directives cover only "commercial" spectrum, that is to say spectrum used to provide a "service normally provided against remuneration" (Articles 2.c and 9.1 of the Framework Directive, whereas 5 of the Authorisation directive 2002/20). The Forum acknowledges that all spectrum is not used for commercial purposes. However, we believe that in order to increase flexibility secondary trading of rights to use radio spectrum should apply at least to a certain extent to non-commercial spectrum as well (if so desired).

The Forum also agrees and supports RSPG's view that license-exempt spectrum, which by the way recently became more and more "commercial", should be excluded from trading. Regarding this, the real question is rather "should, or should not, unlicensed spectrum be used for commercial purposes?" or "should it be used for ***intensive*** commercial purposes?"

When?

See suggestion at question 16

Frequency bands/services?

A possible way to start, could be to implement secondary trading of rights to use radio spectrum in the current IMT-2000 bands after an EU-wide consultation and, if necessary, after some EU co-ordination/harmonisation under the framework directive (Art. 19), or the spectrum decision, or other.

Secondary trading could later be extended to other bands utilised for different but quite similar public wireless communications access (PAMR/datacasting/WiFi, etc…) while maintaining harmonisation where necessary (in accordance with the concept of several platforms managed as a whole which underpins the draft request for opinion from RSPG on a "*co-ordinated EU spectrum policy approach for wireless electronic communications access platforms"* described in document RSPG04-26).

However, services with similar needs are likely to require spectrum at the same time, in the same places. Therefore, a somewhat opposite strategy would be to select categories of services which are "complementary" in the sense that they use spectrum intensively rather at different times in the day (night *versus* working hours), or in different areas (rural *versus* towns). Secondary trading would then be implemented in bands occupied by such "complementary" services.

Secondary trading of rights to use radio spectrum does not seem an exclusive tool for increasing flexibility. As mentioned above, flexibility in spectrum management and use is desirable, whether managed directly by regulatory authorities (no secondary trading) or by negotiations between players which could lead to rights transfer.

The other tools envisaged today such as: "Noise temperature limit", "commons", "cognitive radio", etc. may also contribute to increased flexibility in spectrum management and use, either by themselves or when accompanying the possibility of transfers.

5) What information and electronic communication facilities should be made available to facilitate implementation of secondary trading of rights to use radio spectrum?

In order to facilitate the implementation of secondary trading of rights to use radio spectrum, spectrum management authorities should publish detailed and updated information related to the usage of the whole spectrum, as well as the relevant rights and obligations of spectrum users. The information published should respect the necessary business confidentiality.

The framework and authorisation directive already give some answers since they request that the intention to transfer needs to be notified, and request the publicity of transfers, their publication and a public consultation by authorities when it is foreseen that the number of right beneficiaries is going to be limited….

Furthermore, where transfers are allowed or are possible under some certain circumstances, the ownership, rights and constraints in all bands, should be fully known so that a potential recipient can apply.

The Spectrum Decision (article 5) should provide the instruments so that the ERO data base, or a network of national data bases, be adapted in that direction.

Scope of trading – change of use, reconfiguration

6) Is the possibility to reconfigure rights important? If yes, what kinds of reconfiguration do you consider would benefit consumers, businesses and users of spectrum? (geography, frequency, time, other)

See our response to Question 3 plus the following :

Reconfiguration of rights requires further analysis and legal studies. Frequency and service allocation are critical issues. In our view secondary trading should not lead to “change” standards and service allocation which should always be in line with the ITU recommendations and the WRC decisions. This is necessary for consistency in Research and Development. This being said, as stated in our response to 1-a (last two paragraphs) administrations and standardisation organisations should seek to introduce some flexibility in the too common pattern of one single standard being developed in a given band, and possibly also of only one type of service allowed in a given band.. Flexibility has to be also organised upstream at CEPT/ETSI level. This would maintain visibility in R & D.

7) Is the possibility to use the spectrum in a flexible way important? If yes, what kinds of flexibility do you consider would benefit consumers, business and users of spectrum (service, technical constrains, other)

See our response to Question 3 plus the following:

Efficient use of spectrum can more easily be achieved if standards are established and spectrum harmonisation is supported. Both measures help avoiding huge guard band losses, which would increase with the raise of the number of different technologies to which frequency bands are and/or will be allocated. Nevertheless, harmonisation does not mean uniqueness Two or three standards in the same band and designed for coexistence are still harmonisation. A way forward is to co-ordinate flexibility at standard/allocation level (see our response to Question 1-a, last two paragraphs, or to Question 6 above)

8) To what extent is the tenure an important issue in assessing secondary trading? (indefinite, rolling, fixed, annual, other)

The tenure should be determined on a case by case basis in order to facilitate the availability of the resource in line with the evolution of consumer demand and thus the spectrum needs of service providers. However, in order to secure infrastructure investments and facilitate the development of new services and technologies, we believe that in most cases a fixed, long term and renewable right would be the most appropriate.

9) Should the same rules and regulations apply for the whole of the spectrum?

a) Is there a need for different rules and regulations for different frequency bands? geographical areas? services? users?

As mentioned earlier, in the EU regulation is bound to exist only insofar as to pursue (legal) justified purposes and adapts the means to each situation. Secondary trading of rights to use radio spectrum should not alter in a significant manner the existing variety of situations by a transfer of rights regime. At this point in time, the Forum does not perceive any general pattern differentiating certain bands, certain services, certain users, etc…which could justify a need for different rules and regulations.

b) If you see a need for different rules and regulations in question 8a above, please give examples

Competition aspects

10) Should there be specific competition rules in relation to implementing secondary trading of rights to use radio spectrum, or is general competition law enough?

Since general competition rules are well defined at the European, as well as at the national level, and the regulatory framework for electronic communications networks and services includes competition aspects too, there is no need to implement specific competition rules in relation to implementing secondary trading of rights to use radio spectrum. As a matter of fact, the existing rules seem sufficient for dealing with competition issues that could arise further to the implementation of secondary trading. However, if the existing competition law cannot prevent speculative spectrum hoarding additional regulation might be needed.

It is possible that some players in some of the pertinent markets[2] arrive at holding a portion of spectrum which makes them "significant spectrum holders", whether locally, nationally or on a even broader basis. This could be an element to take into account, and it is not granted at this stage that general competition law and ex post action are enough.

The role of the spectrum management authority

11) What do you see as the main responsibilities for a spectrum management authority in regards to secondary trading of rights to use radio spectrum?

The role of spectrum management authorities consists, in particular, in monitoring and controlling the use of the frequency spectrum, in order to ensure that secondary trading of rights to use spectrum does not generate harmful interference and does not lead to speculative spectrum hoarding. Among the many NRA responsibilities listed in the Framework Directive, some relate more closely to right transfers (besides the obvious "efficient use and management" mentioned in Art. 8.2.d). Those are:

- Avoiding harmful interference
- promoting competition (8.2.b),
- encouraging efficient investment in infrastructure (8.2.c)
- no discrimination in similar circumstances (8.3.c).

Regulatory authorities should also be able to enforce the rights and obligations of spectrum users and have the ability to take binding decisions in spectrum related disputes. The spectrum management authority should also make available a data base gathering all the relevant information on all users and usages of the spectrum.

[2] Market N° 15-16-17 as defined in Rec. 2003/311, or new spectrum-related markets to be defined under art. 15-16 of the Framework Directive.

In a first phase (see Question 12-13), the change of use of the spectrum should be allowed only once the required preliminary technical studies have been completed and the formal authorisation of the regulator has been granted.

12) To what extent is spectrum management authority approval of trades a benefit or an impediment to the development of a market for secondary trading of rights to use radio spectrum?

In the early stages, it seems wiser to have authorities approving the spectrum transfers, even though this can certainly make them longer to establish. At the same time, everybody, from players to authorities will be at the start of the learning curve. Obviously, an appropriate balance should be pursued afterwards between the risks of total freedom and the burden of ex-ante approval, ex-post declaration or…. waiting for complaints and law suits….

The commercial/competition aspects of the trade should be dealt with by general competition law.

Under what circumstances do you consider it would be necessary for a spectrum management authority to refuse a trade?

In the case of a change of use, a preliminary technical study should be mandatory. In case it shows that compatibility between the new service and existing services is not achievable, the **spectrum management authority should refuse the transfer of the right to use radio spectrum**. Basically refusal should occur when the main goals assigned to NRAs (Art 8 of the Framework Directive) are endangered.

13) What specific measures could a spectrum management authority take to handle the issues if secondary trading is introduced? (ex ante approval procedures, ex post notification, competition aspects, limit change of use, interference aspects, other)

As a general rule and in order to reduce transaction costs and the duration of the transaction process, the spectrum management authority should not intervene in the transactions and the negotiations related to these transactions. Ex ante regulation could be required only in the case of a change of use of the traded frequency band. .

In principle, NRA should start with relatively constraining rules and move gradually to a more relaxed policy :

- first, proceed by ex ante approval procedures and limiting the change of use
- second, continue with ex ante approval procedures but relax on the change of use
- then move to ex post notification and more relaxed change of use

Competition aspects and interference aspects are permanent goals which cannot disappear.

14) To what extent should the national spectrum management authority actively facilitate secondary trading of rights to use radio spectrum?

Member States are bound to improve the efficient use of spectrum and transfers are deemed to be one mechanism for that. The national spectrum management authority could actively facilitate the secondary trading of rights to use radio spectrum by providing spectrum users with adequate updated information on the users and usages of the spectrum. For other forms of facilitation, the limit is the unknown. This is why our response, in particular at Question 16, proposes a cautious gradual, and somewhat harmonised or co-ordinated, mode.

Community aspects

15) Do you consider that adoption of individual regimes by EU member states will cause problems for consumers, businesses and radio users? If yes, in what ways and to what extent?

Although we are in favour of a harmonised approach in the EU, it seems too early to try to establish rules or rigid guidelines at a European level. If rules are established (see Question 16), they must be easily modifiable. The involvement of European bodies should rather be at this stage, to favour exchange of views and discussion between the different parties concerned in the process, as this consultation is doing, in order to give clear indications on the future trends to be followed at European level.

16) Do you consider that the EU should take measures to facilitate the implementation of secondary trading of rights to use radio spectrum? If so, in what areas and to what extent?

The EU should ensure a coordination of the way secondary trading of rights to use radio spectrum is envisaged and implemented in the different European countries in the longer term. In the short term, EU and CEPT should continue to discuss the issue and confront views and experiences in the various European countries.

it is too early to respond to Questions 2), 4-a), 9-b), 14) etc. These are implementation questions and relate to too great a variety of situations. What is needed is a way towards common agreed answers. It could be proceeded as follows:

Some form of harmonisation, or at least a common understanding, is needed before starting transfers, RSPG could propose in its opinion that the European Union should arrive at common definitions and recommendations, and possibly a road map for establishing gradually more and more open transfers or rights. This should take place in priority in spectrum where there is a already some Community policy enforced or, as a second priority, envisaged. However, there are implementation issues.

Therefore, the Commission could organise first a public consultation, elaborate on the responses and have its conclusions discussed in RSCOM, COCOM, and possibly TCAM.

A possible area of spectrum-related Community is 2G-2.5-3G, possibly broadened to the concept of co-ordinated wireless public access platforms (Question 4a)

17) To what extent is European harmonisation of frequencies an important issue in regards to secondary trading of rights to use radio spectrum?

Harmonisation of frequency bands is the result of a long and difficult process led successfully mainly by ITU and CEPT. This has benefited all parties involved, including users, and created the European leadership in public mobile systems. We believe that it is essential to maintain and intensify the benefits brought by regional and global harmonisation to consumers and spectrum users.
A change of use of certain frequency bands as a result of secondary trading of rights to use radio spectrum could make future harmonisation more difficult and spoil the results of past harmonisation efforts.
See also end of response to Question 1, part b)

Related experiences and examples of secondary trading

18) What are your experiences with the current spectrum management regimes?

19) What are your experiences of secondary trading of rights to use radio spectrum?

20) Please describe specific scenarios in which you consider that the introduction of secondary trading of rights to use radio spectrum would be beneficial

- Transfers between two or more operators providing the same service who decide to trade their underused frequencies to optimise the spectrum resources.

- Telecommunications operators can take advantage of unused parts of radio spectrum to implement Wireless Access Systems in sparsely populated areas.

- Unused spectrum assigned to defence or emergency services could be reallocated temporarily to telecommunication operators. Special care should be brought to the frequency restitution on request.

- In congested parts of the territory one user could get additional frequency resources from another user at peak traffic times of the day/week.

- Infrastructure or terminal suppliers may lease or rent frequency channels from telecommunications operators for trial or R&D purposes (for a time period agreed). This would be useful especially in those cases when all the spectrum in question has been allocated, e.g. UMTS in most countries.

One field which will benefit from exchanges of rights is infrastructure sharing. In the 3G sector, it became visible, that operators with small amount of spectrum need to get to solutions, where they can put their licensed spectrum together in order to be able to offer higher bit-rate services and/or to build up a radio network economically e.g. in the rural areas, while competing with smaller spectrum in the urban/suburban areas.

21) Any other comments

Spectrum re-allocations could be facilitated by a complementary tool to secondary trading of rights to use radio spectrum, namely “spectrum refarming regime”. In this case, the national spectrum management authority could be in charge of estimating the costs associated to spectrum refarming, establishing the schedules for and supervising the refarming operations and managing the spectrum refarming fund (financed through public subsidies, revenues from frequency fees and direct contributions from the commercial users of the spectrum).

Furthermore, the UMTS Forum believes that secondary trading of rights to use radio spectrum should not lead to competition distortion. As a matter of fact, in a multi-platform competitive environment it seems important to attach similar rights and obligations to different frequency bands used to provide similar/supplementary services such as broadband access. For example, in a context of increasing convergence of electronic communication technologies, frequency fees should not introduce competition distortion between operators providing the same types of services. More generally, a prior harmonisation of frequency fees should facilitate the establishment of fair conditions of competition.

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