Electronic Communications Committee (ECC)
within the European Conference of Postal and Telecommunications Administrations (CEPT)

HARMONISATION OF RADIO LICENSING

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1 INTRODUCTION

The aim of this Report is to give an overview of the licensing procedures that are applicable for the use of radio equipment or the use of frequencies in the CEPT. Throughout the report there is reference to licensing. This should be treated as a generic term referring to the authorization of the use of the radio spectrum, comprising authorizations, frequency assignments, registrations, rights and permissions to use frequencies and other licensing measures and also includes licence exemptions. The Report will give proposals and guidelines which could be used by administrations to simplify and streamline their licensing procedures so that they are transparent, licences are issued without unnecessary delay and licence conditions are limited to the essential ones. The Report is intended to be the follow up of some of the policy goals of the CEPT/ECC:

- To use general authorisations or licence exemption whenever possible.
- To require licences for the use of radio spectrum only when this is necessary.
- To have a transparent, fair and simple licensing system.
- To study which terms and conditions are necessary to attach to individual licences.
- To study the common terms and conditions that should apply to all users of radio spectrum.

2 BACKGROUND

Licensing in the context of this report means permission to use frequencies under certain conditions. However it should be noted that additional licences may also be required, for example operators of telecommunications networks may need a licence or authorisation to offer that service but these are not taken into account in this report.

Licensing has long been treated as a purely national matter, but when equipment was introduced which could be taken across national borders the need for co-ordination, mutual recognition and harmonisation of licences arose. As part of the European Union (EU) programme for liberalisation and increased competition in the telecommunications sector, a number of Directives have been adopted which have implications for licensing policy. Currently there are 15 Member States of the EU (plus 3 EEA countries) who are all also members of CEPT. In addition, a number of CEPT administrations are also in varying stages of negotiations to become members of the EU, and as part of that process are amending national legislation in a number of areas to reflect EU legislation. Therefore, in the area of licensing, it is important that CEPT takes full account of EU policies and proposals.

With regard to the task of reviewing the licensing regimes for the use of frequencies as well as the individual licensing conditions this Report intends to be a further step in the direction of investigating possibilities for harmonisation.
Work was carried out in the ERC and led to various CEPT Recommendations and Decisions suggesting that a specific category of equipment should be exempt from an individual licence or be covered by a general licence.

A Recommendation on a harmonised regime for exemption from individual licensing of radio equipment was adopted in 1995 (CEPT/ERC/REC 01-07). This Recommendation lists the criteria on the basis of which administrations should decide to exempt categories of radio equipment. Based on that Recommendation, which remains in force, subsequently Decisions were approved - and will be approved in the future - covering additional equipment categories (see Annex I).

3 PURPOSE OF LICENSING

The use of radio frequencies has to be carefully planned and authorised to ensure the provision of a sufficiently high standard of service, otherwise it can cause interference to other users. In particular, it is vital that emergency services, aircraft and shipping, be enabled to communicate sufficiently and successfully. Interference can also impair the success of businesses and prevent individuals from the enjoyment of radio and television programmes. Thus, it is clear that access to the frequency spectrum needs to be controlled.

In some cases sufficient organisation of frequency use can be achieved by using general authorisations or licence exemption. In such cases it is not necessary to regulate the characteristics or the individual use of the radio spectrum. Furthermore, it is not necessary to have any dialogue between the Administration and the end user of the radio equipment. In other cases, the Administration might only need to have a small amount of information about the spectrum use and a kind of registration system might meet these requirements.

However that approach is not sufficient in many cases. Even though the frequency bands are harmonised and the radio systems standardised, more detailed administrative work may still be required. There may be several reasons for this:

- For efficient use of the spectrum and avoidance of interference it is necessary to plan the technical characteristics of certain stations and to set specific technical conditions and parameters for their use.
- The frequency used in a given location must be available for use by another user in a separate location without any interference being caused.
- To ensure that there is no overloading when the same channel needs to be assigned to more than one user in a given location.
- Radio transmitters are often concentrated in locations which are attractive because of geographical conditions, availability of antenna sites, etc. In such locations mutual interference through several different mechanisms may occur.
- There may be a need to set priorities to certain user categories. It may be necessary, for example, to prohibit the use of certain attractive frequency bands for hobby purposes, or to allow only security services on certain other bands.
- Co-ordination with neighbouring countries has to take place.

For these reasons, use of radio frequencies requires the Administration has direct regulatory contact with the user. In order to carry out these tasks administrations issue radio licences. Some administrations relate their licences to the systems of equipment used, while others relate licences to the spectrum used. The end result of both approaches are very similar.

4 METHODS OF GRANTING A LICENCE

Depending on the type of services to be licensed, administrations may use different approaches to grant a licence.

The most commonly used method is the “first come, first served” process that enables an applicant to be granted a licence so long as frequencies are available and that the licensing requirements of administrations are satisfied. Licence applications are handled independently by the administrations in the order they are received and considered according to relevant national procedures. The “first come, first served” approach is widely used for granting licences such as PMR, amateur or ship station licences.

When spectrum shortage is anticipated or when specific government goals are being pursued to e.g. foster competition in particular business areas, the “first come, first served” approach may not be appropriate to ensure an efficient and optimal use of spectrum or to promote competition. In such cases, administrations may revert to selection procedures such as auctions or beauty contests or a combination of both.

Auctions result in a licence being granted to the highest bidder. In general bidders are allowed to participate in an auction if they fulfil certain pre-selection criteria. These may range from for example having sufficient financial resources to being capable of meeting specific obligations should the licence be awarded. Further to a pre-selection phase, auctions may consist of one or several phases, with e.g. multi-round sequential auction or simultaneous auction.

Beauty contests on the other hand are based on the evaluation of applications against a number of requirements such as financial resources, technical capabilities, business plan, geographical coverage and roll-out targets. As in the case of auctions the selection process may consist of two phases, a pre-selection phase and a selection phase. In the latter, applications are compared by and licences are granted to the candidates that best fulfil certain requirements (e.g. roll-out and coverage).

Auctions and beauty contests have been used in the recent past for the award of UMTS licences and Wireless Local Loop licences for instance, however it should be noted that it is up to administrations to decide which is the most appropriate approach to use.

When granting licences administrations are required to ensure that regardless of the method chosen, the process happens in an objective, transparent, non-discriminatory and proportionate manner.

5 APPLICATION

Application for the radio licence will usually have to be made to the appropriate authority. The type of service (land mobile, fixed etc.) will determine the extent and degree of information requested. There are differences in complexity of the requirements for different services. Application information should be easily available preferably by way of application forms, which should be as simple as possible. In general the following information is required:

Licensee information:

- Name and address and other contact details.
- Billing address.
- Contact person responsible for operation.

Service information:

- Type of service.
- Address or co-ordinates of base station(s).
- Coverage area.
- Equipment configuration of network.
- Other technical conditions as listed in section 9 below.

The time taken for processing licence applications varies greatly between administrations – often for no apparent reason. Delays may occur because of the need for international co-ordination but signatories to the Vienna Agreement[1] (an agreement on guidelines to be used for frequency co-ordination for the fixed service and the land mobile service between neighbouring countries) have to adhere to a time scale of three months for co-ordination processes.

For countries implementing EU legislation when the Authorisation Directive (Directive 2002/20/EC) has come into force, a legal limitation for the processing time of license applications will exist. Article 5 p3 of the directive states that decisions on the rights of use for radio frequencies shall be taken, and communicated and made public as soon as possible after the receipt of the complete application by the national regulatory authority, within 6 weeks in the case of frequencies that have been allocated for specific purposes within the national frequency plan. The time limit shall be without prejudice to any applicable international agreements relating to the use of radio frequencies and orbital positions.

Article 7 of the Directive states that if frequencies are to granted by the use of a competitive or comparative selection procedure the time limit may be extended in order to ensure that such procedures are fair, reasonable, open and transparent to all interested parties. The procedure must however not exceed eight months. The time limit shall be without prejudice to any applicable international agreements relating to the use of radio frequencies and orbital positions.

6 CO-ORDINATION

Co-ordination procedures may be undertaken at international or national level in order to avoid interference between services. International co-ordination may involve notification to the ITU or procedures within multilateral agreements. National co-ordination will involve discussions with other services or users within an administration to ensure that their services, which might be allocated the same or adjacent bands, do not interfere with each other.

7 LICENCE CONDITIONS

Licensing policy is generally covered by national laws and administrative procedures under the control of Government. In some, licence issue has been delegated to agencies.

[1] Also referred to as “Berlin agreement” after it was revised in Berlin in 2001: an agreement between the Administrations of Austria, Belgium, the Czech Republic, Germany, France, Hungary, the Netherlands, Croatia, Italy, Liechtenstein, Lithuania, Luxembourg, Poland, Romania, the Slovak Republic, Slovenia and Switzerland on the co-ordination of frequencies between 29.7 MHz and 39.5 GHz for the fixed service and the land mobile service

If the intended usage is in line with the frequency usage plan and frequencies are available, the licence will be issued. This licence will contain certain conditions which the user has to observe. As with the licence applications, here there are also differences in the complexity of the conditions.

If spectrum use is subject to a general authorisation or licence exemption, then usually only a small number of conditions will be imposed such as the need to ensure that the equipment operates to the correct performance parameters.

On the other hand, if spectrum use is subject to individual licensing, it is likely that more detailed conditions will be attached to the licence

Apart from the licence conditions there may be rules that the users have to observe. There may be restrictions regarding the contents of communications, obligations for users with regard to distress calls or the secrecy of communications and/or limitations regarding the use of the equipment. Licence conditions are often standard texts which apply to particular licence categories: this helps to ensure that similar users are subject to similar conditions in order to assist transparency.

8 RESTRICTIONS

In principle, radio licences are issued, if enough frequencies are available. However, there are cases where administrations need to impose additional restrictions on the licensee. The reason for such restrictions may be based on legal constraints or on frequency management requirements but they should be kept to a minimum.

Examples of restrictions are:

- Use of spectrum confined to a geographical area or excluded from a particular geographical area.
- Connection to PSTN not allowed.
- Only plain language, no encoding.
- Use of spectrum restricted to a specific purpose.
- Use of spectrum only with certificate of competence.
- Who is entitled to use spectrum.
- Power restrictions.

9 TECHNICAL CONDITIONS

The 'technical conditions' part of the licence defines the parameters within which the frequency-spectrum is permitted to be used. This part of licence-documentation will be individually tailored.. With the implementation of the RTTE Directive (see… below) equipment has to meet relevant performance standards which in many cases are part of harmonised Standards. Partly as a consequence, it is now no longer necessary to include some of the previously very detailed technical conditions in licences.

1. Typically the conditions will detail (as applicable):
   - Purpose and coverage area.
   - Station location
   - Channel/frequency band of operation and bandwidth.
   - Antenna configuration and height of antenna above ground level
   - Maximum power permitted
   - Emission code (based on ITU).

2. For some services additional details will be necessary and examples of these are:
   - Selective signalling codes (CTCSS, DSC).
   - Call sign or identification.
   - Digitally coded squelch.
   - Access arrangements to specific frequencies, and how authorised.
   - Hours of operation.
   - International requirements.
   - Connection to PSTN.

In order to meet the requirements of EU legislation it is important that licences are transparent and only contain terms and conditions which can be justified as necessary. One approach to ensure that this happens is by having as much similarity as

possible in all licences. Of course, this is not always possible in practice. However, what is possible is to have similar licence formats for all kinds of licence; and within that, to have similar conditions for similar types of licence.

10 FEES AND CHARGES

Currently, payment of one-off and/or annual fees may be required as part of the licence conditions.

Fees differ from Administration to Administration e.g. in terms of amount to be paid, methods and parameters used for calculation.

There are two main types of fees. The first is administrative fees or charges which aim at recovering the costs related to the issuing, monitoring and enforcement of a licence. In practice not all administrations have applied charges which are directly related to administrative costs so far and it is not always clear how such fees are derived. A second type of fees charged is spectrum usage fees. Such fees do not relate to the cost of frequency management but the fee level reflects the value of the spectrum and may depend on e.g. the amount of spectrum used.

With the implementation of the EU Authorisation[2] Directive administrations in countries that implement EU legislation have to comply with the provision that administrative charges can only be set to cover the actual administrative costs incurred by issuing an authorisation. Additionally spectrum usage fees may be applied to ensure optimal use of spectrum. Further administrations are required to annually publish their administrative costs and the charges collected. These measures should contribute to reaching a greater transparency and harmonisation of fees across a number of CEPT countries.

11 DURATION OF A LICENCE

When determining the duration of a licence several factors have to be considered such as:

- Future changes in the use of radio spectrum.
- The period of time during which the spectrum is intended to be used.
- The technical development to be expected.
- The time required in order to achieve a reasonable financial return for the licensee.

The most common licence duration are:

- Temporary licence (from 1 day to a few months) allows licensee to use frequency for short-term events, temporary work or trial purposes. In this case, especially for very short-term events, all the requirements of the hosting administration (e.g. frequency plan...) may not have to be fulfilled.
- One-year licence; this is the most common duration which in particular enables the administration to make sure that the relevant fees are paid.
- A licence for a longer period could be issued.
    - if no changes are expected in the next years,: either from the view point of spectrum management or from the licensee side.
    - to allow licensees to have a return of investment, for example the case of auctions.
- Permanent licences could also be issued but in this case administrations must take measure to be able to take back the spectrum, e.g. in case of re-farming purposes.

Spectrum licences for broadcast and mobile telecommunications networks may require different time limits.

For short term events, the fees should be adapted accordingly.

12 TRANSFER OF LICENCES

Most administrations do not permit transfer of licences unconditionally. This is because the format of a licence is such that it is a "permission" from the Regulator authorising the licensee to carry out a defined operation under the specific terms set out in the licence. The regulator needs to know who is using specific frequencies. This is necessary for a number of

[2] Directive 2002/20/EC of 24 April 2002 on the authorisation of electronic communications networks and services

reasons. In particular the administration needs to be informed in advance of the transfer, to ensure that the original terms and obligations are still met, no distortion of competition is caused and for technical reason such as interference and enforcement problems.

13 INSPECTION

Licensing policies and legislation of administrations contain provisions for enforcement of the legislation. Inspection is one instrument to carry out this task.

National Authorities carry out inspections and measurements of radio equipment in accordance with their national guidelines and procedures. The main reasons for inspections can be:

- Suspicion or evidence of transgressing the law.
- To verify compliance with licence conditions.
- To protect all authorised spectrum users from harmful interference.
- To carry out the administration's policy of frequency management.
- To verify the conformity of radio equipment (e.g. R&TTE 99/05/EC Directive).

More detailed information on inspection can be found in section 5 of ECC Report 15 on market surveillance, radio equipment, and inspection spectrum monitoring and enforcement aspects of these activities.

14 REVOCATION

Revocation in this context means termination or withdrawal of a previously given permission to use frequencies under certain conditions.

Withdrawal of a license should only take place in exceptional circumstances and must be proportionate to the breach of conditions. Thus the question of revocation has to be considered explicitly in each case.

Sanctions for breach of conditions given in a licence when the circumstances are not exceptional would most likely be to impose financial penalties, if appropriate.

- Termination initiated by the user:
  - The license can be revoked by the licensing authority on the user's request.

- Termination initiated by the authority:

  The revocation of a license under the EU-legislation can only take place[3]:
  - If there is a serious and repeated breach of the conditions given in the license and the undertaking has been given a chance to remedy the breach.
  - The relevant authority shall take relevant and proportionate measures aimed at ensuring compliance.
  - In cases of serious and repeated breaches of the conditions of the general authorisation or rights of use, national regulatory authorities may prevent an undertaking from continuing to use the licensed spectrum.
  - Spectrum management requirements such as national security and interests, international harmonisation of the frequency band, spectrum efficiency, re-farming etc.
  - The insolvency of the licensee. (In case of bankruptcy etc.).

15 ONE STOP SHOPPING OSS

This procedure is intended to assist operators who wish to carry out satellite operations in several CEPT countries. Through the OSS, operators are able to file their licence or authorisation applications electronically, on-line, via one central point (the Shop) which ensures that the application is forwarded to all relevant administrations for processing. In addition to an electronic common application form (CAF) applicants have access to a regulatory information database providing comparable national regulatory information.

[3] Directive 2002/20/EC, authorisation directive article 10

The OSS SAT procedure does not involve any transfer of responsibilities or sovereign rights in granting the licences or authorisations from the national administrations to the Shop. The Shop only acts as a point of contact, as an (electronic) post-box and as an information centre for applicants. The OSS SAT does not prevent applicants and National Regulatory Authorities from having direct contact.

The OSS SAT was launched in October 2000 and currently applies in 16 CEPT countries (Austria, Belgium, Denmark, Finland, France, Germany, Hungary, Ireland, Luxembourg, Monaco, Netherlands, Norway, Portugal, Sweden, Switzerland, United Kingdom). More information at www.ero.dk.

16 ELECTRONIC LICENSING AND EXCHANGE OF FEES

There are now many different ways in which written communication can be conveyed e.g. fax, e-mail, on diskette, as well as the traditional paper format. This means that a number of administrations are currently considering the implications of these changes for the licensing – and fee collection – process. In some countries some of the new ways e.g. licence applications and licensing via electronic mail are considered as an acceptable way of achieving benefits that can arise through electronic licensing ; but other countries are concerned about the need to maintain confidentiality or to ensure that the exchange of correspondence is with legitimate licensees, and are therefore currently more cautious about permitting these types of communication and introducing the necessary business changes.

However, as the new techniques become more widely available, and acceptable in general business practice, it is likely that more will agree to their use. There are a number of benefits that may be realised through the arrival of electronic licensing, such as quicker delivery of licences, more dynamic spectrum management as well as introducing harmonised business processes. However these benefits need to be balanced against the requirement to install increasingly sophisticated IT systems and the need to maintain confidentiality in the issue of licences and the collection of fees. A relatively small number of administrations are currently closely examining the benefits that might be obtained by introducing the necessary changes and the experience of these administrations is being closely monitored by CEPT/WGRR on behalf of the ECC and where possible this experience is being passed on for the benefit of all administrations.

17 CONCLUSIONS AND FURTHER WORK

Based on the information collected on the licensing systems in the different CEPT countries, it can be concluded that there is a variation in licensing systems mainly caused by the differences in legislation. It is therefore not possible to harmonise licensing systems fully within the CEPT. However it is clear that national licensing systems should comply with minimal criteria of deregulation transparency and timeliness. To some extent this has begun as a result of the implementation of EEA legislation by a large number of administrations. Other issues which might be considered are included below:

1) Several Decisions have been made providing for the licence exemption of different kinds of equipment. Whenever possible administrations should implement these Decisions. An action has been taken by ECC to find out how far this has been done, and to discover why administrations have not implemented these Decision.

2) Furthermore, administrations should aim to ensure that requirements imposed in licences are relevant to efficient spectrum management. Section 7, 8 and 9 above give information about terms and conditions which commonly form part of licences. A study could be undertaken to consider if there is any way in which these can be harmonised further.

3) In order to have licensing systems which are transparent, fair and simple it is proposed that administrations make information publicly available on:
   - The frequency allocation table; ECC Decision 03/xx provides that administrations should publicise national frequency allocation and utilisation tables.
   - Conditions and rules applied to licence categories .
   - Application procedures; a further study will be undertaken to draft harmonised licence application forms.
   - Fee structures.

4) Administrations should process licence applications as quickly as possible. Where co-ordination is required, timescales given in the relevant frequency co-ordination agreements should be adhered to.