



European Radiocommunications Committee (ERC)
within the European Conference of Postal and Telecommunications Administrations (CEPT)

REVIEW OF ELECTRONIC LICENSING

Bergen, June 2001

Chapters 5 and 6 present the initial findings arising from the questionnaire and propose the way forward recommending areas for further studies. These chapters have therefore been inserted as cover pages to facilitate reading and highlight the possible further work.

CONCLUSIONS

Initial findings, arising from the questionnaire and presentations.

- There are considerable differences in existing technical and administrative infrastructure within administrations at present for the issue of licences.
- This means that there are likely to be similar differences by administrations in the rate of progress towards an electronic licensing platform.
- The introduction of electronic licensing has clearly identified benefits to both the licensees concerned and parallel benefits to administrations.
- There exist a number of key issues that are critical to the success of electronic licensing.
- The plans to introduce electronic licensing are improved with the involvement of licensees through a 'pilot project' approach.
- That there currently exists, for the majority of administrations, a number of formidable barriers that need to be overcome before electronic licensing could be considered viable for those administrations.
- There needs to be re-assurance for some administrations that electronic licensing as a concept is not merely the changing of administrative paper work into electronic format.
- That electronic licensing should be viewed in a wider context as a means of being able to facilitate and improve access to spectrum now and in the future.
- That it is useful to study how far administrations can profit from the lessons learned during the process of developing the OS project and in how far the outcome of the OSS can be used by administrations.

WAY FORWARD AND RECOMMENDATIONS

There is clear evidence that some administrations have started or plan to start electronic licensing. The current differences in preparedness of administrations towards electronic licensing and differences in businesses processes, means that a single approach to electronic licensing is not possible, at this time. However, the experience of some administrations indicates that the sharing of information will be useful. In particular a number of areas highlighted by the survey can assist administrations in their preparations towards electronic licensing. To assist a consistent approach, the following areas could be studied and developed further to assist the emergence of best practice for the benefit of all administrations:

- checklist to identify product sectors
- electronic payments
- electronic signature
- online availability 24 hours
- helpdesk – customer assistance
- customer infrastructure
- validation of certification
- language of texts
- links to other data and information
- confidentiality
- online/offline problems

It is recommended that the ERC takes note of the progress that some administrations are making towards electronic licensing and monitors progress being made by administrations in the adoption of best practices in order to move towards a unified approach, within the electronic licensing process.

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REVIEW OF ELECTRONIC LICENSING

1 INTRODUCTION

At the 29th WG RR meeting held in Luxembourg from 11-15 September 2000 discussions took place concerning electronic licensing. At that meeting it was evident that some CEPT Administrations were in the process of implementing, or planning to implement, electronic licensing. It was decided to aim for a harmonised CEPT approach on the issue, to progress it further by devoting time to the issue at the WG RR meeting held in The Hague in February 2001. Support for this approach was given by the ERC at its 29th meeting held in (Lisbon, 16-20 October 2000) who agreed with a proposed RR work item on electronic licensing.

2 PURPOSE OF THE REPORT

The purpose of the report is to advise administrations on the various means of electronic licensing. Electronic licensing is a process by which licensees are able to forward applications in an electronic format and which also enables administrations to issue licenses electronically. The report will describe the current position of administrations in their moves towards electronic licensing together with an indication of future plans. It will also look at the advantages and constraints of electronic licensing and give some initial conclusions and findings arising from the experiences of administrations.

3 SURVEY

It was agreed, that the work would be done on a step-by-step basis, starting with a survey of the actual situation in CEPT administrations concerning electronic licensing and that RR would report back to ERC with its initial findings. There would be two separate processes for the survey to inform the situation before any further work would be undertaken. The first was the submission of a questionnaire to all administrations. Followed at the next WGRR meeting by presentations with some administrations giving the benefit of their experiences, together with an initial analysis of the results obtained from the questionnaire. The WGRR meeting would allow a first 'round table' discussion on experiences and how the issue might be taken forward.

3.1 Questionnaire

A copy of the questionnaire sent to all administrations is at Annex A.

3.2 Responses.

Responses and a summary to questions contained in the questionnaire are given below:

Administrations that had started (or had plans) to introduce electronic licensing [Part A of the Questionnaire]

Q. A1-Are you going on the electronic route with licensing ?

There was a good response from administrations, with 24 administrations (listed in Annex B) providing information. Of these nine administrations: Belgium, Denmark, Finland, Germany, Hungary, Ireland, The Netherlands, Norway and the United Kingdom declared that they had started, or planned, to introduce some form of electronic licensing practices.

Q.A2 - Is there an application available on your home page for: PMR; Maritime; Amateur; Aircraft; Paging; Satellite; Fixed Links; Public Networks; Broadcasting or Others ?

Of those administrations that had started preparations for electronic licensing there was clear evidence of a similarity in approach, with nearly all administrations declaring that application forms were already available on the 'homepage'. Within these nearly all main business areas were covered with the exception of broadcasting, where the business activity would not allow an electronic licensing approach.

Q.A3 - Do you intend to process the application form (without manual intervention) for: PMR; Maritime; Amateur; Aircraft; Paging; Satellite; Fixed Links; Public Networks; Broadcasting or Others ?

The responses to this question suggested that it could be applied in any of the business areas. However only a few administrations had started the process.

Q.A4 – Which licenses or services will be delivered electronically: PMR; Maritime; Amateur; Aircraft; Paging; Satellite; Fixed Links; Public Networks; Broadcasting or Others ?

Responses to this question indicated that the electronic delivery of licenses or services was possible for all business areas as with Question A.3 above, that only a few administrations had started the process.

Q.A5 – What reasons made you go down the electronic route: Government policy; Industry wishes; User wishes; Financial benefit; to simplify the licensing process or other ?

The motivation for administrations to adopt to an electronic licensing process varied but the main reasons given were to simplify the licensing process and to a lesser extent to meet government policy.

Q.A6 – Do you intend to collect the fees electronically (e.g. on-line e-payments, agreed automatic transference of funds, credit cards) ?

- only three administrations indicated that their preparations towards e-licensing included the electronic collection of fees.

Administrations that had not (yet) explored electronic means for licensing processing. [Part B of the Questionnaire]

Fifteen administrations who responded to the questionnaire indicated that they had at present no plans to introduce electronic licensing, these were: Austria; Bulgaria; Cyprus; Czech Republic; Estonia; Lithuania; Principality of Monaco; Portugal; Romania; the Russian Federation; the Slovak Republic; Slovenia; Sweden, Switzerland and Turkey.

Q.B1- Why has your administration not explored the electronic processing of licences ?

Nearly all administrations stated that there were legal or regulatory reasons for not pursuing electronic licensing; security considerations were also given as a main reason.

Q.B2 - Do you use any of the following in your licence process: inter-net; e-mail; fax; data message?

Nearly all administrations that had not yet planned electronic licensing used fax as a means of exchanging information, with the inter-net and email used to a lesser extent.

Q.B3 - Does your administration currently use IT systems for any part of the your licensing or frequency allocation processes ?

Almost half of the administrations were currently using IT systems

Q.B4 – If so which type of licences are covered by IT systems: PMR; Maritime; Amateur; Aircraft; Paging; Satellite; Fixed Links; Public Networks; Broadcasting or Others ?

All business areas listed were stated by administrations as being covered by IT systems; with the PMR, Maritime; Amateur; Aircraft and Fixed Link sectors being the most frequently cited areas and Public Networks the business area least served by IT systems.

Q.B5 – Does your Administration use electronic means or IT databases for any other aspects of regulatory topics (e.g. databases for enforcement, registration) ?

Nine administrations stated that they involved IT systems in their organisations for purpose other than licensing.

Q.B6 Are you aware of any market demand for the electronic licensing of radio licences?

Of the fifteen administrations that replied that they did not have current plans for electronic licensing, six were aware however of some form of market demand.

Q.B7 Does your Administration accept electronic payments for licensing (e.g. on-line e-payment, agreed automatic transference of funds, credit cards) ?

Only two administrations were currently able to accept electronic payments for licensing

Q.B8 Do you think that in the future you may consider electronic licensing ?

All 15 administrations that had no immediate plans to carry out electronic licensing stated that they would consider that electronic licensing practices in the future.

3.3 Conclusions from Questionnaire

- Over half (55%) of CEPT administrations had begun, planned or thought they would in the future plan for some form of electronic licensing process.
- Administrations already offer, a wide range of licensing services capable of being delivered electronically e.g. application forms; electronic processing.
- These are available across a wide range of business sectors but these vary between administrations

- There are a number of reasons which exist to support an e-licensing approach but the most important of these appears to be efficiency gains brought about by the simplification of the licensing process
- The main inhibitors to an e-licensing approach appear to be of a legal, regulatory or security nature
- Some administrations that had not yet planned electronic licensing did however use a range of automatic information delivery mechanisms e.g. internet, e-mail and fax
- Some administrations that had not yet planned electronic licensing did however, already use IT systems to deliver a range of services across a diverse range of business services e.g. applications forms on internet
- Some administrations who had no immediate plans to implement electronic licensing were aware, however, of a market demand for these services
- The collection of fees by electronic methods was low across all administrations
- All administrations that had not yet introduced or planned electronic licensing believed that they would consider it at some stage in the future.

4 LICENSING DAY

The WGRR meeting held in The Hague in February 2001 set aside a day to consider the results obtained from the questionnaire and gave an opportunity for some administrations to advise on progress they were making towards the introduction of electronic licensing. The UK, Netherlands and Finland gave presentations on their current plans; whilst the European Radio Office gave a presentation on lessons learned both from a planning and technical perspective through the introduction of a 'one-stop shop' (OSS). A synopsis of all presentations is given below:

4.1 Presentations

UK

The policy of the UK administration is to be able to electronically deliver licences, to all those licensees who wish to use electronic means, by the end of 2004. Benefits are expected to arise through lower licensing costs and overall improvements to service quality. Licensees will also benefit from online help and the means to make electronic payments. Further benefits will arise for the agency with less time spent answering questions. In addition there will be less data input work and more resource for engineering tasks; payments will also be easier to collect. It was emphasised that authentication and customer involvement are important issues.

Trials have been made in the PBR paging sector, with the end of 2001 as the target implementation date. Thirteen thousand customers are involved in the trials which will be evaluated before the rollout of the new system. It is the eventual aim that customers will be able to select on-line their own frequency assignment, taking the quality of the frequency and costs into account.

The Netherlands

The Netherlands thought that in keeping with progress in IT developments electronic licensing was a good way to bring benefits to its customers. As a start to its electronic licensing project two groups were selected: radio amateurs and pleasure boats. This involves a group of 50.000 licensees. The goals of the project were quality improvement of the work, workflow efficiency and the possibility to request a licence 24 hours per day. The project made it necessary to redesign work processes and the project had organisational implications, such as greater pressure on the technical departments. The outcome of the pilot is that 30% of the target group makes use of the possibility to ask for a licence electronically and has expressed appreciation for the work. The conclusion is therefore that results are promising.

Finland

Finland introduced a computerised licensing system in 1997. There are two methods used to deal with the customer, via open e-mail and via a secure system. All potential customers can apply for all licence categories via unprotected e-mail. The handling within the office and the issuing of licences will be protected. Licences will be stored on the server for downloading. Verified transactions for a number of licences will be the next step and computerised handling of applications the third one.

At this moment the process is that licence applications are received electronically, acknowledged electronically and then printed on paper and dealt in accordance with current practices. When a start is made with protected electronic licensing, new hardware is necessary in the office as well as at the customer's end. (HST card/card readers). There are new versions expected of this equipment, therefore the introduction is delayed

ERO

The European Radio Office gave an overview of the lessons learned from OSS project. Critical issues have been the definition of the project, the resources, selection of the software house, design phase and timing. A questionnaire have been sent to administrations about the questions on their application form, but it turned out that different interpretations were given to questions. Also a number of items in the project had been left to define later, but that proved to be a wrong approach. It is advisable to define the features the system should have, like online/off line processes, at the start. Also before starting the developing it should have been indicated what the answers to each questions should be. Another problem proved to be the different browser types that are in use. Also the decision to have an on-line as well as an off-line version created extra cost and complexity. The OSS had of course additional difficulties that will not occur when developing national application forms, such as the skipping of questions and the numbering of questions. Also the different languages created extra complications.

4.2 Conclusions arising from presentations

The presentations given at the 'licensing day' set aside at WGRR demonstrated a number of common conclusions from those administrations that had given or were planning some form of electronic delivery of services. These are given below:

Benefits for the licensee

Licensees might expect to receive real benefits through improvements to service quality, including eventual reduction in costs for licensing improvements in service availability including a possible 24 hour service delivery. Electronic licensing would assist standardisation of the licensing process, with particular benefits to licensees in areas of high-volume licences which would, in turn benefit from reduced licence 'turnaround' times and the throughput of routine work. Licensees could expect to see immediate benefits through "intelligent" application forms, on-line "help" service, printing at source, navigation of forms and information sites and automatic attachments. The process would also allow licensees to gain greater transparency into the licensing process.

Benefits for licensing authorities

Administrations who were preparing for electronic licensing thought that in addition to benefits that would be obtained by licensees that there were also parallel benefits for administrations. These centred upon reduced data input work, simpler upkeep of electronic records and retrieval of information, and assistance in security of data. Resource gains would also be made through spending less time contacting customer and the diversion of resources where they might be employed to best effect. (e.g. by freeing up the time of engineers. The improvements in the delivery of services, it was felt, would allow the application of quality regimes to the application process and would assist administrations to be regarded as "professional" organisations.

Key Issues to be resolved

There were some issues that administrations had identified as being critical to the successful delivery of electronic licensing. These were the ability of administrations to accept and register fees through an electronic route; the need for authentication or verification of customer and therefore for sophisticated data security systems. Customer involvement in the process was considered to be critical and it was important to ensure that suitable customer groups were selected for pilot projects in order to gain maximum benefits. Pilot projects were underway within the Private Radiopaging sector, verified licensing and in the maritime sector, where about 30% of the target group had looked towards electronic delivery of licenses.

Constraints

Although all administrations believed that there were clearly identified benefits to be obtained from electronic licensing, these needed to be balanced against a number of identified barriers and constraints. These included organisational issues that need to be addressed; the technical impact; legal and regulatory issues that need to be resolved; financial consequences; marketing; delay caused through the almost complete absence of commercial services and competition; techniques still at development stage; user rights; re-design of existing delivery services; need to adopt a formal management project approach to ensure accurate project definition which will bring added pressure on technical departments, allocation of resource, selection of IT developers, design stage and needs analysis. Benefits need to be carefully balanced against additional costs and complexity and need for on-going maintenance and there were particular problems for ERO for the requirement for different language versions.

5 CONCLUSIONS

Initial findings, arising from the questionnaire and presentations.

- There are considerable differences in existing technical and administrative infrastructure within administrations at present for the issue of licences.
- This means that there are likely to be similar differences by administrations in the rate of progress towards an electronic licensing platform.
- The introduction of electronic licensing has clearly identified benefits to both the licensees concerned and parallel benefits to administrations.
- There exist a number of key issues that are critical to the success of electronic licensing.
- The plans to introduce electronic licensing are improved with the involvement of licensees through a ‘pilot project’ approach.
- That there currently exists, for the majority of administrations, a number of formidable barriers that need to be overcome before electronic licensing could be considered viable for those administrations.
- There needs to be re-assurance for some administrations that electronic licensing as a concept is not merely the changing of administrative paper work into electronic format.
- That electronic licensing should be viewed in a wider context as a means of being able to facilitate and improve access to spectrum now and in the future.
- That it is useful to study how far administrations can profit from the lessons learned during the process of developing the OS project and in how far the outcome of the OSS can be used by administrations.

6 WAY FORWARD AND RECOMMENDATIONS

There is clear evidence that some administrations have started or plan to start electronic licensing. The current differences in preparedness of administrations towards electronic licensing and differences in businesses processes, means that a single approach to electronic licensing is not possible, at this time. However, the experience of some administrations indicates that the sharing of information will be useful. In particular a number of areas highlighted by the survey can assist administrations in their preparations towards electronic licensing. To assist a consistent approach, the following areas could be studied and developed further to assist the emergence of best practice for the benefit of all administrations:

- checklist to identify product sectors
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It is recommended that the ERC takes note of the progress that some administrations are making towards electronic licensing and monitors progress being made by administrations in the adoption of best practices in order to move towards a unified approach, within the electronic licensing process.

ANNEX A

Issue: **ELECTRONIC LICENSING**

Introduction:

During its 29th meeting (Luxembourg, 11-15 September 2000) WG RR discussed briefly the issue of electronic licensing and it appeared at that meeting that some CEPT Administrations at present are in the process of implementing or planning to implement electronic licensing. It was decided, with the aim for a preferable harmonised CEPT approach on the issue, to carry the issue further and to spend more time on the issue at the next WG RR meeting, which is scheduled for Den Haag (the Netherlands), 5-9 February 2001.

Further on the ERC, at its 29th meeting (Lisbon, 16-20 October 2000) agreed with the proposed RR work item on electronic licensing. It was agreed, however, that the work would be done on a step-by-step basis, starting with an inventory of the actual situation in CEPT administrations re electronic licensing and that RR would report back to ERC before any further work would be undertaken. This questionnaire is part of that process.

It is agreed that during the next WGRR meeting some Administrations will give presentations on their experiences with the issue followed by a first 'round table' discussion on experiences up till now and how this topic may be taken forward. A presentation will also be given showing an initial analysis of the results obtained from the questionnaire.

What is 'electronic licensing'? and what is the actual practice of today?

To give some guidance on what to define under 'electronic licensing' RR6 concluded that 'electronic licensing includes at least the processing of applications and issuing licenses electronically'!

Electronic licensing has started to happen in many Administrations, and many others are thinking about introducing it. While licensing is still very much a national process, associated with national policies, it may be useful to produce a report about this subject in order to share experiences, offer guidance, and investigate what options there might be for transposing 'best practices' in this across CEPT in the interest of harmonisation.

Full electronic licensing is an ambitious aim, and involves many subsidiary aspects.

To facilitate the discussions at the next WG RR meeting your Administration is requested to answer the questions given below.

IF YOUR ADMINISTRATION HAS STARTED (OR HAS PLANS) TO INTRODUCE ELECTRONIC LICENSING PLEASE COMPLETE `PART A` BELOW:

IF YOUR ADMINISTRATION HAS NOT (YET) EXPLORED ELECTRONIC MEANS FOR LICENSING PROCESSING. PLEASE COMPLETE `PART B` OF THIS QUESTIONNAIRE

PART A

Questions:

		started	planned
1.	Are you going on the electronic route with licensing?		
<hr/>			
2.	Is there an application form available on your homepage for		
	• PMR		
	• Maritime		
	• Amateur		
	• Aircraft		
	• Paging		
	• Satellite		
	• Fixed links		
	• Public Networks		
	• Broadcasting		
	• Others,		
	Please specify		
<hr/>			
3.	Do you intend to process the application form electronically (without manual intervention) for		
	• PMR		
	• Maritime		
	• Amateur		
	• Aircraft		
	• Paging		
	• Satellite		
	• Fixed links		
	• Public Networks		
	• Broadcasting		
	• Others,		
	Please specify		

		started	planned
4.	Which licences or services will be delivered electronically?		
	• PMR		
	• Maritime		
	• Amateur		
	• Aircraft		
	• Paging		
	• Satellite		
	• Fixed links		
	• Public Networks		
	• Broadcasting		
	• Others,		
	Please specify		
5.	What reasons made you go down the electronic route?		
	• Government policy?		
	• Industry wishes?		
	• User wishes?		
	• Financial benefit?		
	• Simplify licensing process?		
	• Other?		
	Please specify:		

6. Do you intend to collect fees electronically (e.g. on-line e-payments, agreed automatic transference of funds, credit cards) ?

YES

NO

PART B

Questions:

1.	Why has your administration not explored the electronic processing of licences?
	• Policy reasons?
	• Security reasons?
	• Lack of facilities?
	• Legal or regulatory reasons?
	• Other?
	Please specify:
2.	Do you use any of the following in your licence process?
	• `Internet`
	• e-mail
	• fax
	• data message

3. *Does your Administration currently use IT systems for any part of your licensing or frequency allocation processes?*

YES

NO

4.	If so which type of licences are covered by IT systems?
	• PMR
	• Maritime
	• Amateur
	• Aircraft
	• Paging
	• Satellite
	• Fixed links
	• Public Networks
	• Broadcasting
	• Others,
	Please specify

5. *Does your Administration use electronic means or IT databases for any other aspects of regulatory topics (e.g. databases for enforcement, registration)?*

YES

NO

6. *Are you aware of any market demand for the electronic licensing of radio licences?*

YES

NO

7. *Does your Administration accept electronic payments for licensing (e.g. on-line e-payment, agreed automatic transference of funds, credit cards)?*

YES

NO

8. *Do you think that in the future you may consider electronic licensing?*

YES

NO

You are requested to complete the questionnaire, giving information on your administration's position on electronic licensing to the Chairman of RR6, Rudolf Rieder,
e-mail: **by not later than Friday, 22nd December 2000.**

Thank you for your cooperation

