

**PROJECT ON  
SET OF ITEMS TO  
BE INCLUDED IN THE  
RIO 2001**

## **0. PREAMBLE**

Following the previously adopted procedure where, after consulting the interested parties, ICP approved and published the "Set of Items to be Included in the RIO 2000" (<http://www.icp.pt/actual/ele2000/PRI2000.doc>), (<http://www.telecom.pt/empresa/interligacao.asp>), we hereby present a project related to the Set of Items to be Included in the RIO 2001, with the objective of hearing the interested parties.

Acknowledging that a short period has lapsed since full liberalisation, we nonetheless consider that the various market agents through their experience can contribute toward the process of drawing up the "Set of Items to be included in the RIO 2001".

Within this context, we would be grateful for all duly substantiated and justified comments regarding the contents and structure of the document presented and, in particular, the questions posed.

## **I. SCOPE**

Taking into account recent market evolutions characterised, namely, by a rapid and sustained growth in data transmission services, especially the Internet (in 1999 the increase in data traffic volume was above 150%), within the context of the development of the Information Society, the question of possibly including it within the scope of the RIO is at the very centre of the debate.

Within this context, it can be seen that upon approaching this issue one should consider the guiding interconnection principles which seek to economically ensure the interests of users, namely by promoting the establishment and development of national networks and services and of the interconnection of networks and inter-operability services, as well as by guaranteeing a universal service and boosting a competitive market.

Furthermore, it should be mentioned that this issue had already been identified in 1999 upon the notification process of entities with significant market power, for the purposes set out in Decree-Law no. 415/98 - <http://www.icp.pt/actual/dspms1.html>.

As the applicability of Decree-Law no. 415/98 to data traffic is indisputable, it is considered that these conditions may be established within the scope of the RIO, considering possible advantages, in terms of guaranteeing the principle of transparency and of a greater adaptation to a global provision of services on the interconnection market.

***Q1 - Do you think that the interconnection conditions for data traffic/Internet must be included within the scope of the RIO 2001?***

## II. POINTS OF INTERCONNECTION

The structure of the OSMP network presents hierarchical connections among switches and co-exists with direct links (between switches on the same level or different levels), and was developed based on technical and economical criteria, possibly adapted to the time at which the investment decisions were made.

Nonetheless, within the framework of the previous process of hearing operators, the question was posed whether the structure of the interconnection network of the OSMP was still totally optimised, especially in relation to the localisation of the "National" points of interconnection concentrated in Lisbon and Oporto.

*Q2 - Faced with the concerns expressed, do you think that the current structure, hierarchical adjustment and distribution of points of interconnection are adequate? What possible changes for 2001 would you consider to be satisfactory at a level of providing points of interconnection?*

### **A. General description**

The following information must be presented:

1. Identification of the Points of Interconnection (POIs) (geographic situation, address, current state) with an indication of the type of switch according to the hierarchy of the network (including the international one).
2. Possible POIs conditions restricting the provision.

## **B. Specific details**

The list of POIs and related information must:

1. Include information on the numbering groups associated to each POI.
2. Include information on the network for the purposes of interconnection, namely type of equipment, localisation of the equipment, architecture, etc.
3. Provide details of any restrictions to the provision.
4. The operator with SMP must ensure that the interconnection services provided are not interrupted. Any foreseeable change that may bring about localised and temporary unavailability of the service provided on the network or in the interconnection areas must be communicated. Furthermore, said communication must be duly justified and substantiated in advance so as not to affect the service provided by other service operators and providers.
5. The operator responsible for the temporary unavailability of the interconnection services must ensure other viable alternatives, namely by alternative routing through another POIs.

## **III. TECHNICAL OPTIONS FOR INTERCONNECTION**

The conditions related to the leasing of infrastructures and spaces (e.g. using ducts to establish interconnection circuits, co-location of equipment) must be specified in terms of pricing.

In the RIO 2000, PT defined the conditions whereby it could make available the infrastructures necessary for the co-installation of equipment within its buildings or in an outside area.

The conditions related to the leasing of infrastructures and spaces of the SMPO must be specified in terms of pricing, and said information may also be complemented, namely, by information related to the space available in each POI and access conditions to the premises.

***Q3 - What parameters do you think are necessary so as to guarantee greater transparency and the development of co-location provision?***

#### **IV. INTERCONNECTION CIRCUITS**

##### **A. General description**

1. The conditions of provision of the leased lines offered in their totality by the operator with SMP for the purposes of interconnection must be clearly set out, namely in terms of pricing, service quality indicators and ordering procedures. These procedures should not be below those currently practised by this operator.
2. Given the fact that the circuits one resorts to for the purposes of interconnection are made up of different components, capacities and additional technological elements, these distinctive characteristics must be

clearly set out and reflected in a suitable manner in the conditions of provision of said circuits.

3. In the cases where the circuits for interconnection purposes (with the infrastructure of the operator with SMP) have been totally or partially supplied by another licensed operator, the following must be set out by the operator with SMP:

3.1. The interconnection conditions so as to guarantee the interoperability of the telecommunication services (e.g. deadlines for installing the POIs of the operator with SMP and availability for end-to-end testing, etc.).

3.2. The technical conditions for interconnecting circuits at points situated outside the premises of the operator with SMP.

3.3. The technical conditions for interconnecting circuits on the premises of the operator with SMP.

3.4. The responsibilities of each operator with regard to operating, maintaining and repairing circuits.

The network of the notified operator, originally planned essentially with the aim of transporting and switching voice on a narrow band, has increasingly served as a support for data traffic and especially for the Internet. The latter, as we know, has been increasing exponentially and this is a tendency which one should maintain or even reinforce in the future.

In the medium term, one can expect growing volumes of data traffic to migrate to other types of networks which are technologically more suited to processing said traffic. Among the possible advantages associated to this type of evolution,

there is the possibility that the data traffic could be identified at a preliminary stage in the packet-switching fixed network and promptly routed to an alternative data network which will contribute namely, to preventing possible jamming.

However, in the short term, it is considered that there may be scope to proceed with possible adjustments to interconnection modes related to Internet traffic, particularly in the case where it is considered that such conditions must be consolidated within the scope of the RIO (see Question 1).

It is reported in certain cases especially that upon agreement between the operators, there has been recourse to the installation of primary ISDN accesses, when setting into operation the provision of Internet services in the connections between Points of Interconnection and POP's.

In this case, there would be possible aspects to evaluate at the level of the conditions associated with making primary accesses available, where these are considered necessary for providing the service.

Finally, it is acknowledged that any developments regarding the existing situation must be carefully examined, namely in terms of costs, service quality, adaptation to network engineering and adjustment to the effective needs of the end users.

***Q4 - Taking into account the development registered in the interconnection line market:***



*4.1 Do you think it would be necessary to include the provision of primary ISDN accesses in the "Set of Items"? What changes do you think would be suitable within the framework of the interconnection conditions related to Internet traffic/data?*

*4.2 Could the interconnection conditions of the Internet traffic/data be duly re-equated in the leased line provision? In this situation, what additional specifications would you propose?*

In Portugal, as in most of the EU Member States, there has been a sustained decrease in the pricing of leased lines. Nonetheless, the European Commission has considered (see "Commission Recommendation on leased lines interconnection pricing in a liberalised telecommunications market" at <http://www.ispo.cec.be/infosoc/telecompolicy/en/ic-ll-final-en.pdf>) that the pricing practised would still be beyond what is expected for promoting service and European industry competition (compared with, for example, the pricing practised in the USA), inasmuch as the leased lines would function as the "foundation" of the communications market.

Within this framework, it becomes necessary to motivate the boosting of an increasingly competitive leased lines market, by investing in alternative infrastructures, namely optical fibre. However, it is probable that the new operators will continue to need to interconnect their lines to the notified operator, as a support to the services provided.

Thus, it may be necessary to specify in a more precise way the conditions applicable to the interconnection of circuits with SMP operators, especially local ends, with the circuits of

the remaining operators, so as to allow the latter a more complete provision of leased lines to end users.

*Q5 - With a view to boosting a competitive leased line market which will contribute toward the development of the Information Society, do you think there should be more specified details as to the conditions of interconnection between the lines of an operator with SMP and the lines of the other operators? If so, which particular aspects do think must be highlighted?*

**B. Specific details**

The following must be identified:

1. The technical specifications of interconnection circuits:
  - 1.1. Physical transmission media and technical interface for transmission.
  - 1.2. Available bandwidth and minimum number of available circuits.
  - 1.3. Types of lines available (e.g., two-way or one-way).
  - 1.4. Support technology.
  - 1.5. Implementation periods for installing a circuit and for changing line characteristics.
3. Pricing components to be charged for providing circuits, including:
  - 3.1. Fixed and variable pricing for connecting circuits.
  - 3.2. Applicable pricing for the different levels of service quality.

3.3. **Types of discount applicable.**

3.4. Conditions of provision when the provision of interconnection circuits is supplied in conjunction with other operators.

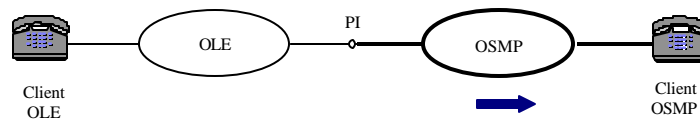
**VI. INTERCONNECTION TRAFFIC**

**A. General description**

1. The following services must be offered on the fixed telephone network (analogue access or ISDN) by an operator with SMP:

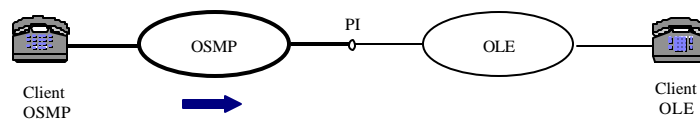
**A. Call termination**

The operator with SMP (OSMP) delivers the call, made from other licensed entity (OLE), from a certain POI to one of its clients.



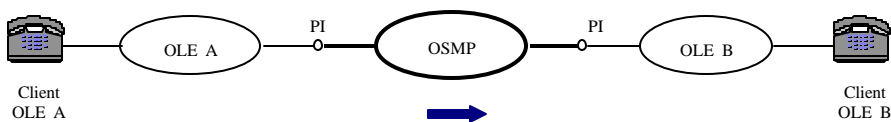
**B. Call origin**

The operator with SMP delivers the call, made by one of its clients, to a certain POI, from where another licensed entity will terminate the call at one of its clients.



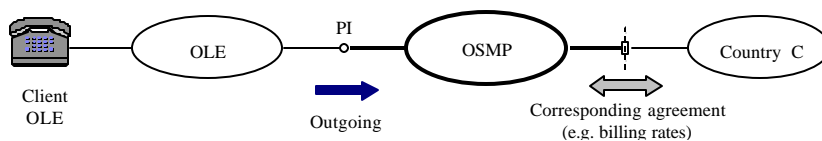
**C. National traffic**

A tripartite agreement, involving operators on national Portuguese territory, where the operator with SMP delivers a call, made by a client of licensed entity A to a client of another licensed entity B, between two POIs.



#### D. Delivery of international traffic

A bipartite agreement, where the operator with SMP delivers, from a certain POI, a call made in Portugal by a client of another licensed entity, with a foreign destination.



2. One must define the entities responsible for ownership of traffic, upon whom it falls to define the prices to be paid by the end user and carry out the respective billing.

At a European level, it should be noted that there are operators in other Member States whose RIOs do not offer a service for delivering international traffic. This may be due to the sustained decrease in pricing for international transmission and the competitive routing of international traffic. Nevertheless, the different levels of development and the particular operating conditions of the different European markets may justify adopting different strategies in pursuing a common objective.

## **B. Specific details**

The following points must be taken into consideration:

1. Routing traffic as economically and efficiently as possible among operators must be favoured.
2. Itemising of services provided in each POI.
3. Indication of pricing for interconnection traffic at the different levels (e.g. "Local", "Simple Traffic", "Double Traffic" and Outgoing International (Where the scope of international traffic may be altered according to the possibilities raised in questions 5.1 and 5.2), indicating the origin and destination for the latter). Pricing for interconnection traffic in 2001 must be compatible with the principle of cost orientation and must also continue to reflect standard practices in the European Union.
4. Price indication of other types of traffic, namely those to be established following changes to the structure of the network or billing, depending on the relevant costs identified in the network structure.
5. The billing method used, including the elements of billed calls (call; impulse; unit of time; etc).
6. Hourly and daily billing variations (e.g. Peak and Off-peak period).
7. The geographical reference point or access when the charge for call conveyance is based on distance.

The recent development in market conditions and the need to maintain a greater balance between the principle of free negotiation and the principle of transparency, could call for a thorough description of the mechanisms applied to discounts and other special conditions at the level of the RIO 2001.

*discounts and other special conditions should be fully presented in the RIO 2001?*

## **5 VII. TECHNICAL SPECIFICATIONS RELATED TO ACCESS INTERFACES**

### **A. General description**

Description of the interfaces provided in the POIs, including the references of the relevant technical norms (e.g. ETSI norms and/or UIT recommendation) defining the interface:

1. Electrical and physical.
2. Transmission.
3. Signalling.
4. Reference to the network synchronisation system.
5. Reference to the functions that are being offered via the interface (identification of the calling line, call forwarding, etc.).

### **B. Specific details**

1. The technical specifications related to access interfaces must be made public and may not contain any confidentiality mechanism.

## **VIII. SERVICE QUALITY**

### **A. General description**

1. The service quality levels provided to the entities with which the operator with SMP interconnects should not be bellow than those offered in the own network of the operator with SMP.

## **B. Specific details**

One must specify the parameters and minimum quality levels to be guaranteed for:

1. Interconnection circuits and POI (e.g. availability, time for repair work, transmission quality, installation periods, etc.).
2. Network where calls originate or terminate (e.g. calls not carried out, etc.).

The development of the market and its growing dynamism require that services be provided with quality levels suited to the evolutions that have taken place.

It is thought that the service quality indicators to be observed, as well as the levels established, must be identical to those defined for the notified operator in the Leased Line and Fixed Telephone Service markets.

Within this context, emphasis will be given to the contributions of the entities involved, with a view to better adapting the indicators that should be favoured *vis-à-vis* market conditions and demands.

***Q8 - Do you agree with the approach presented in relation to the service quality indicators to be observed? Which indicators in particular do you think must be favoured?***

## **IX. SUPPORT SERVICES**

### **A. General description**

Access to the following services, in particular, must be guaranteed:

1. Operator support services.
2. Emergency services.
3. National directory enquiries and international directory enquiries.

### **B. Specific details**

The following points must be specified:

1. Conditions for access to information services to be established among operators.
2. Provision conditions for access to support services, including emergency services.
3. A detailed list of all available services must be made available and updated regularly.

## **x. ADDITIONAL SERVICES**

### **A. General description**

The following services, at the very least, must be guaranteed:

1. The calling line identification and the restriction of identification, whenever technically possible. The information regarding the identification of the calling line (including the information necessary for its



restriction) should be made available to the interconnected parties, under the terms of the applicable legislation related to the protection of personal data and privacy. Regarding the exceptional cases where this service is not available in certain areas, the date from which the service will become available must be indicated.

2. Call Forwarding;
3. User-to-user signalling.
4. Access to special telephone services necessary for the remaining service operators and providers to offer services competitive with those provided by the operator with SMP (e.g. freephone numbers, local rate services and value added services), in accordance with the legislation in force.

At a European level, one finds that in some countries the applicable conditions for access to freephone numbers are included in the RIO.

Furthermore, it is also thought that conditions related to other services can be included within the scope of the RIO, such as: local rate services, information services, client support services, virtual phone card, "Universal" number.

***Q9 - Do you think that conditions related to access to freephone numbers, local rates services, information services, client support services, virtual phone card, "Universal" number, etc., must be included in the RIO? If so, which specific aspects must be safeguarded?***

## **B. Specific details**

One must clearly set out the access conditions of the other service operators and providers to the special telephone services of the operator with SMP, as well as the access conditions of the subscribers of the operator with SMP to the special telephone services of the other service operators and providers.

## **XI-OPERATOR SELECTION**

### **A. General description**

1. Taking into consideration that when the selection functions are used, the traffic is originated by the entity providing the selected service (indirect access provider), unless otherwise agreed upon:
  - 1.1 **The ownership of traffic belongs to the provider selected.**
  - 1.2 The provider **selected** determines which prices are to be paid by the end user.
  - 1.3 The provider **selected** bills the end user directly.
2. The **terms of supplying** the billing service (e.g. price, format, deadlines, payments) must be clearly set out to the providers selected by the end user.
3. The provision conditions for the interconnection service provided must be clearly set out (call origination and/or termination), conditions related to using the network of the operator with SMP for access to packet-switching services (e.g. local, regional, national and

international) of the selected operator as from 01/01/2001.

4. **The** fixed telephone service providers with direct access are exempt from implementing the access code of eligible calls for operator selection for their subscribers, when said calls are delivered by the operator himself.

#### **B. Specific details**

1. The encompassing range of eligible calls may be altered in conformity with that set out in previous questions.
2. When applicable to public pay phones run by the operator with SMP, one must identify the provision conditions of the call-by-call operator selection, for eligible calls.
3. The selected calls must not be included in the billing system referred to in the previous point.

### **XII. OPERATOR PRE-SELECTION**

With regard to Pre-Selection, the general principles and specific rules already defined by ICP must be applied. Furthermore, the notified operator must clearly set out the prices applicable to this provision.

### **XIII. PORTABILITY**

One must specify the technical options, prices and pricing conditions related to operator portability in the fixed

telephone network and the integrated services digital network (ISDN), which must be introduced up until 30/06/2001<sup>1</sup>.

#### **XIV. GENERAL CONDITIONS**

The following points must be specified:

1. Procedures to be followed in the case where there is a proposal to alter the normal interconnection terms and conditions. Indication of quick and simple procedures for the re-negotiation of specific aspects of interconnection agreements, namely pricing.
2. Alterations to the interconnection terms and conditions must be minimised. Nevertheless, when such alterations are justified, the operator with SMP must formally present the expected alterations to said terms and conditions, with a reasonable prior notice.
3. Procedures related to inter-operability testing. Description of different stages in standard test proceedings, including their duration, which must be reasonable. Testing must also verify and confirm network integrity and the inter-operability of the functional characteristics and of the services agreed upon in the interconnection agreement.
4. Procedures to be followed in the case of proposed alterations to networks or services offered by one of the parties, including procedures to gain access to the new/altered services.

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<sup>1</sup> Subsequent to the public survey on portability (<http://www.icp.pt/portabilidade/index.htm>), questions related to this subject will be dealt with separately, and in relation to which the RIO 2001 may be adapted.

5. Procedures for **POI** re-configuration. Details of all the financial conditions, where work is necessary on the switches of the operator with SMP so as to allow the calls of the interconnected entity to be routed. As accurate as possible a prevision must be given in relation to the necessary costs and schedules for implementing such an operation.
6. Billing conditions among operators and accounting requirements, for example, file format and control over the accounting of registrations.
7. Conditions for providing client billing. Where an operator with SMP bills for another, this must be clearly referred to.
8. Processes for resolving legal disputes.
9. General conditions for revising, suspending or terminating contracts, as well as responsibilities and cases of *force majeure*.
10. Specific provisions related to confidentiality.

## **XV. FURTHER ISSUES**

The EC through its recommendation on Unbundled Access to the Local Loop (ULL), Doc. C(2000)1059 of 26/04/00 (<http://www.ispo.cec.be/infosoc/telecompolicy/review99/rec2000-1059en.pdf>), proposes that a reference offer for ULL be drawn up, by the operator providing ULL.

Within this context, a public survey will soon be launched at a national level and in relation to the ULL, which should be made available up until 01/06/2001. Furthermore, one should

not exclude the possibility that conditions related to the ULL may be analysed and documented autonomously.

Considering the experience gained in the interim by all market agents, within a context of full liberalisation, and where the establishment and development of relations among said agents stands out, one must acknowledge that there may be further aspects worthy of adequate reflection in the context of the Set of Items for the RIO 2001.

***Q10 - What further issues would you like to be dealt with in the Set of Items for the RIO 2001?***