

# THE PRINCIPLES AND PRECONDITIONS OF THE REFERENCE INTERCONNECTION OFFER

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## - Explanatory Memorandum -

### Objectives

(1) The preparation for the complete liberalization of the electronic communications market on the 1st of January 2003 and the market opening for full competition raise two major problems:

- Equal access (all electronic communications providers must have access to all the users, without any provider being advantaged). Equal access is accomplished by the selection and pre-selection mechanisms of the carrier, by giving the user the possibility to easily choose the carrier or the service provider, regardless of the local loop provider, providers the user is not directly connected with (hereinafter referred to as "indirect access") being also included;
- "Anyone to anyone" communication (all users must be able to communicate with each other, irrespective of the operator they are directly connected with). "Anyone to anyone" communication is achieved through the interconnection of electronic communication networks.

### The legal framework

(2) The legal regulatory framework concerning these two major problems comprises:

- a) Government Ordinance no. 34/2002 on access to, and interconnection of, electronic communications networks and associated facilities, published in the Official Romanian Journal, Part I, no. 88/February 2, 2002, approved with amendments and completions by Law no. 527/2002, published in the Official Romanian Journal no. 602/August 14, 2002;
- b) Government Emergency Ordinance no. 79/2002 on the general regulatory framework for communications, published in the Official Romanian Journal, Part I, no. 457/June 27, 2002, approved with amendments and completions by Law no. 591/2002, published in the Official Romanian Journal, Part I, no. 791/October 30, 2002.

(3) The above-mentioned normative documents represent the transposition in the national law of the following European Acts:

- a) Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, published in the Official

Journal of the European Communities L108/7 from 24.04.2002 (Access Directive);

b) Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services, published in the Official Journal of the European Communities L108/7 from 24.04.2002 (Framework Directive);

c) Regulation no. 2887/2000 on unbundled access to the local loop, published in the Official Journal of the European Communities from 30.12.2000.

**(4)** On grounds of art. 9 of Government Ordinance no. 34/2002 on access to, and interconnection of, electronic communications networks and associated facilities, in case ANRC imposes to an operator having significant market power an obligation of non-discrimination, ANRC can also impose to this operator the obligation to publish a Reference Interconnection Offer (hereinafter referred to as "RIO") which represents a list of interconnection services offered together with the conditions associated to this services (including tariffs).

**(5)** RIO is one of the essential instruments for the implementation of an interconnection regime that promotes competition.

**(6)** RIO must be sufficiently detailed in order to allow the interconnection to the network points where interconnection is technically feasible and to ensure those who request interconnection they do not pay for resources that are not necessary to the requested service.

**(7)** Within RIO, ANRC imposes certain clauses that ensure the compliance with legal obligations. ANRC shall also impose changes of RIO when deemed necessary for the observance of legal provisions.

### **The aim of interconnection regulation**

**(8)** The aim of the interconnection regulation is to protect the interests of the final users by promoting the competition, entailing price decrease, quality improvement and diversification of the services. In order to develop an effective competition, for the purpose of increasing consumers' advantages and stimulating innovation within the electronic communications market, the operators must have access to all the users, including those connected to the competitors' networks.

**(9)** ANRC intends that the basic terms and principles of RIO and the interconnection agreements be appropriate in the light of the major objectives of ANRC and the national policy and strategy in the electronic communications sector.

**(10)** By the *ex-ante*<sup>1</sup> regulation regarding interconnection principles and pre-conditions, ANRC shall promote an equal level for interconnection agreements negotiations, and shall therefore allow well-balanced positions of the negotiating parties otherwise naturally unbalanced in favor of the significant market power operator, who enjoys a superior market position and has strategic interest in minimizing the competition.

**(11)** ANRC shall impose to the significant market power operator to publish the RIO as scheduled by ANRC and under certain conditions that ensure the implementation of a minimum set of interconnection services, taking into account the principles and conditions pre-established by ANRC.

**(12)** The interconnection regime shall be based on the transparency, nondiscrimination and cost-orientation principles. During the first phase, as a temporary measure, the principle regarding cost-oriented tariffs shall be based on the international benchmarking method.

**(13)** Certain obligations must be imposed to the operator with significant market power so as to ensure that new competitors can enter the market and especially that new competitors have the possibility to consolidate their position on the electronic communications market.

**Interconnection services provided in UE member states – general presentation**

# Module	Title	Services
Module 1	Basic calls/ client-service and billing services	<ul style="list-style-type: none"> <li>• Connection for basic voice service (initialization, termination, transit)</li> <li>• CLI Services (Call Line Identification) ex. CLIP (Call Line Identity Presentation), CLIR (Call Line Identification Restriction), MCID (Malicious Call Identification)</li> <li>• Access to information on subscribers</li> <li>• Emergency services</li> <li>• Billing services</li> </ul> Ex. – the provision of detailed and unique bills for all provided services - AOC services (Advice of Charge): AOC-S (AOC at Setting up the call), AOC-D (AOC During the call), AOC-E (AOC at the End of the call)
Module 2	ISDN/GSM supplementary services	ISDN supplementary “end to end” services between two fixed networks Common ISDN/GSM supplementary services between a fixed

<sup>1</sup> Experience of several countries, such as Great Britain, USA, and Australia, showed that a major obstacle in the development of competition is the lack of sufficient *ex-ante* rules, mainly related to: the maximum duration of negotiations, the availability of a precise and clear regulatory framework for the interconnection principles, the deadlines for interconnection implementation and the conditions to be observed.

		and a mobile network. GSM supplementary "end to end" services between two mobile networks.
Module 3	Advanced services	VPN Services (Virtual Private Network) Advanced IN services (Intelligent Network): free phone services, premium rate, Virtual Card for Calling, UPT services (Universal Personal Telecommunication)
Module 4	Carrier selection services	- Selection of the carrier at every call by dialing a code made of an equal number of numbers for all the operators; - or carrier pre-selection by the client plus the possibility to select other carrier for each call by dialing the respective code [with the following versions: 1. Changing the default carrier by the instantaneous change of DTMF (Dual Tone Multi-Frequency) - on-line changing of the pre-selected carrier; 2. Pre-selection of the carrier by ANRC depending on the market share
Module 5	Number portability	Number portability for the local loop (allows the user to keep his phone number when changing the network operator, but only if he does not change his residency). Number portability fixed-mobile and mobile-mobile The non-geographical number portability.

The above modules no. 1, 2, and 3 correspond to services, offered to end users, that can be provided through interconnected networks. Modules no. 4 and 5 correspond to the requirements for special services that appear in a competitive regime.

The interconnection services in modules no. 1, 2 and 4 can be provided by the use of the techniques and standards for the non-IN (non-intelligent) networks interconnection. Except for a small number of solutions for local portability, modules no. 3 and 5 require IN (intelligent networks) interconnection solutions.

**ANRC puts forth that the set of interconnection services to be included in the first RIO of the dominant operator and to be published no later than the 1<sup>st</sup> of January 2003 should be the ones set out in the following Decision draft.**

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On grounds of Decision no. 113/2002 of the Prime Minister on the appointment of the president of the National Regulatory Authority for Communications,

On grounds of art. no. 38(1), (3) and (5), 34(3) and 46(1) paragraph 6 of Government Ordinance no. 79/2002 on the general regulatory framework for electronic communications approved with amendments and completions by Law no. 591/2002, and of art. 8(1), 9, 10, 12 and 13(1) and (2) of Government ordinance no. 34/2002 on access to, and interconnection of, public electronic communications networks and associated facilities approved with amendments and completions by Law no. 527/2002,

Considering the provisions of the Decision no. C/EI/2002 National Regulatory Authority for Communications President by which the S.N.Tc. Romtelecom S.A. has been designated as having significant market power on access to the fixed telephony public networks,

**THE PRESIDENT OF  
THE NATIONAL REGULATORY AUTHORITY FOR COMMUNICATIONS**

issues the present:

**DECISION  
ON THE PRINCIPLES AND PRECONDITIONS OF THE REFERENCE  
INTERCONNECTION OFFER FOR THE FIXED TELEPHONY PUBLIC  
NETWORKS**

Art 1- The object and aim of the decision

(1) S.N.Tc. Romtelecom S.A. (hereinafter referred to as the "*Operator*"), designated as having significant power on the market of the access to fixed telephony public networks based upon Decision no. C/EI/2002 of the president of ANRC, has the obligation of non-discrimination with respect to the interconnection of communication public networks operated by it and the communications public networks installed, operated, controlled or made available by other operators (hereinafter referred to as "*Beneficiaries*"), as follows:

a) The *Operator* shall impose equal interconnection conditions under equal circumstances to all the legal persons who request or already benefit from interconnection with the public communications networks operated by the *Operator*;

b) The *Operator* shall make available for third parties the necessary services and information for their interconnection with the public communications networks operated by the *Operator*, under the same conditions, the level of quality included, as those offered by the *Operator* for his own services or for the services provided to its subsidiaries, branches or partners.

(2) No later than the 1st of January 2003, the *Operator* is bound to publish and to also make available on its website the *Reference Interconnection Offer* (hereinafter referred to as "*RIO*"). *RIO* shall at least comprise a set of minimum interconnection services set out herein and the associated terms and conditions, including the tariffs offered by the *Beneficiaries*.

(3) *RIO* shall be sufficiently detailed as to allow interconnection in all network points where interconnection is technically feasible and to ensure that ensure the *Beneficiaries* they must not pay for services that are not necessary for the requested service.

Art. 2- Definitions

- a) *Operator's system (Beneficiary's, respectively)* - equipment and software by means of which the *Operator* and the *Beneficiary* provide their own electronic communication services;
- b) *the capacity of the interconnection link* - the capacity defined for the interconnection link and for the corresponding access point to which the *Beneficiary* wants to connect (expressed as multiple of 2Mbits/sec or any other agreed measurement unit)
- c) *carrier selection code* (hereinafter referred to as "CSC") - a pre-defined selection code allocated by the National Regulatory Authority for Communications (hereinafter referred to as "ANRC") under the numbering national plan, such code being used for providing the calls origination service;
- d) *Operator access point* - the physical interface to the *Operator's* system at the level that allows interconnection;
- e) *Beneficiary access point* - the physical interface to the *Beneficiary's* system at the level that allows interconnection;
- f) *interconnection point (IP)* – the physical interface part of the interconnection link at that level where *Operator's* network interconnects with *Beneficiary's* network. The interconnection point represents the limit between the domains of responsibility of the interconnected operators;
- g) *interconnection interface* - all the elements necessary for the practical implementation of the interconnection in order to establish the interoperability of services, including the interconnection of physical elements, services and advanced functions accessible between the interconnected networks, the control mechanism of those services and their billing, as well as the operational arrangements;
- h) *national interconnection* - the interconnection to the double transit router, that allows access to all operators' network users;
- i) *regional interconnection* - the interconnection to a single transit router, that allows access to all operators' end users located in one region defined according to the operators' network architecture;
- j) *local interconnection* – the interconnection to the local digital router or other inferior local routers in the network hierarchy, that allows access to all the operator's end users located in one county or a smaller geographical area (other *Operator's* users).

Art. 3- The minimum set of interconnection services

The *Operator* shall provide the *Beneficiary* with the following minimum set of interconnection services:

- a) interconnection for calls termination (as well as the interconnection to the transit router and the local router);
- b) interconnection for calls initiation through the carrier selection procedure (hereinafter referred to as "CS");
- c) transit service (routed traffic).

Art. 4- Interconnection service for call termination

(1) Through the interconnection offer for call termination, the *Operator* is bound to ensure the termination on every national number in its network or on any other number on which termination is technically possible according to the network hierarchy for the calls taken over from the *Beneficiary's* system through the point of interconnection with the *Operator* (Annex 1, Picture 1).

(2) The only charged calls shall be ended calls (calls that have been successfully established and answered). The charging time starts with the response signal and ends with the first line release signal generated by one of the parts.

(3) In case of a bi-directional service, the tariffs charged by the *Beneficiary* for providing interconnection service for a call termination in *Operator's* network shall have a similar structure to those charged by the *Operator* and shall be subject to negotiation between the parties.

(4) The calls termination on national numbers service that is not terminated in the *Operators* network shall be provided if the *Operator* has concluded a call termination agreement with the operator on whose network the call is terminated (Annex 1, Picture 2).

(5) When a service for the Identification of the Calling Line (CLI) is transferred to the *Operator's* network, the *Operator* shall not communicate the identity of the calling line to a final user if CLI is marked with Restriction on the Identification of the Calling Line (CLIR), except when the call is diverted to an emergency call.

Art. 5- The interconnection service for call initialization through the carrier selection procedure

(1) Starting with the 1st of January 2003, the *Operator* is bound to offer the final users the possibility to access the network of another operator by dialing a CSC for every call. For each call, the final user therefore has the possibility to choose another operator than the one providing access (Annex 1, Picture 3).

(2) The service for call initialization using CS is based on the method comprising the instantly dial of the entire number, CSC included, without the necessity to dial the code separately from the phone number. The *Operator* is not obliged to provide this service on public pay telephones and on telephones connected to analog exchanges.

(3) The final user dialing a certain number is identified through the Identification Service of the Called Line (ICL) transmitted by the *Operator* to the *Beneficiary's* network through the interconnection point.

(4) Starting on the moment when a certain call is transferred to the network of an interconnected operator based upon dialing the CSC, the responsibility for the manipulating and routing the respective call is also transferred to the selected operator, that shall terminate the call and bill the final calling user. The *Beneficiary*, at his turn, shall be billed by the *Operator* for the respective interconnection service for call initiation.

(5) The interconnection service for call initiation shall be available for all calls

regardless of the number dialed after CSC, except for the calls to 112 emergency number to be terminated by the *Operator*.

(6) The implementation of the call initiation service is achieved when the final user physically connected to the *Operator's* network dials a numbering sequence consisting of CSC followed by the national number, or the international "00" prefix, and by the international number.

(7) According to technical possibilities, the *Operator* shall place at *Beneficiary's* disposal billing services on behalf and for the account of the *Beneficiary*, in exchange for a fee calculated based upon the cost of the respective service.

#### Art. 6- Transit service

(1) Through the transit service, *the Operator* shall provide the routing through his electronic communications network of the traffic taken over from the *Beneficiary's system* as well as its transmission to an autonomous system that does not belong to the *Operator*. (Annex 1, Picture 4)

(2) The *Operator* shall ensure the transparent and free of charge communication of all signaling information, those related to CLI included, which were transmitted to the *Operator* related to the taken over traffic.

#### Art. 7- Interconnection methods

(1) The *Operator* shall provide the physical link between the *Operator's system* and the *Beneficiary's interconnection point*. The *Operator* shall gradually increase the provided capacity with maximum 2 Mbit/s, and the *Beneficiary* will therefore not be obliged to pay for additional not necessary capacities.

(2) The *Operator* shall ensure the provision of the following interconnection services using the physical link related to the traffic transmission through/from the *Beneficiary*.

- a) interconnection inside *Beneficiary's* spaces;
- b) distance interconnection (including extended circuits interconnection);
- c) interconnection inside *Operator's* spaces.

#### Art. 8- Interconnection in *Beneficiary's* spaces

(1) With respect to this form of interconnection, the *Operator* shall entirely provide an interconnection link for both traffic ways and such link shall remain under *Operator's* ownership.

(2) The interconnection point shall be located at the access point to the digital distribution frame (DDF) of the *Operator* located in the *Beneficiary's* space, the *Operator* being responsible for managing the interconnection link (Annex 2, Picture 1).

(3) The *Beneficiary* shall provide the *Operator* with access to *Beneficiary's* space for the purpose of installation and maintenance of the operational status of the *Operator's* transmission equipment located in the respective space.

(4) The *Beneficiary* shall provide the *Operator* with an appropriate space for *Operator's* equipment and with power supply and shall ensure the security of the



*Operator's* transmission equipment, if such equipment is used for the interconnection links that carry the interconnection traffic.

(5) In case of interconnection line malfunction, the *Operator* in his capacity as an owner shall bear the costs of repairs, except for the case when the *Beneficiary* is proved to be responsible for the caused damage.

#### Art. 9- Distance Interconnection

(1) For distance interconnection, the two parties shall provide each other with their own interconnection link to the distance interconnection point (IDP) to be established through mutual agreement (Annex 2, Picture 2).

(2) Within RIO, the *Operator* shall emphasize the types of physical interconnection links provided, the carrying technology used for the provided links (i.e. PDH/SDH, radio, SONET etc.), the provision deadlines, the tariffs, and the quality levels for the interconnection links.

(3) The *Operator* shall provide the interconnection link and the technical capacity and features requested by the *Beneficiary*, in accordance with the technical possibilities. *Operator's* responsibility regarding the capacity of the provided link shall be clearly defined in RIO.

(4) The deadline for providing an additional capacity to the interconnection link shall not exceed 1 month after the registration date of the *Operator's* request.

(5) In case of damage of the interconnection link provided by the *Operator*, he shall immediately start to locate and repair the damage, even temporarily, but not later than one hour after the notification of malfunction forwarded by the *Beneficiary*. The parties, through the interconnection agreement, shall set out the deadline for the repair of damages, as well as delay compensations. The costs of the repairs shall be entirely supported by the *Operator*, except when the *Beneficiary* is proved to be responsible for the caused damage.

#### Art. 10- Extended circuits interconnection

(1) Upon *Beneficiary's* request, together with the distance interconnection service the *Operator* shall provide the interconnection of extended circuits (Annex 2, Picture 2).

(2) This service ensures that the *Operator* shall provide a direct link between the router serving as the distance interconnection point and another router. The *Operator* thereby uses its infrastructure for transmission purposes in order to extend *Beneficiary's* interconnection to another router part of the *Operator's* network.

(3) The tariff paid by the *Beneficiary* consists of the initial interconnection tariff and of the tariff for the provided direct link.

#### Art. 11- Interconnection inside *Operator's* spaces

(1) With respect to the interconnection inside *Operator's* spaces, the *Beneficiary* shall provide the entire interconnection link. IP shall be placed at the access point in the *Beneficiary's* DDF located inside the interconnection space (Annex 1,

Picture 3).

(2) The *Operator* shall allow the *Beneficiary* to have access to *Operator's* spaces in order to install and maintain equipments, according to Decision no. E/EI/2002 of the president of ANRC on the principles and preconditions of the reference collocation offer.

Art. 12- Interconnection points (IP)

(1) The *Operator* shall interconnect his fixed network to all its access points for which requests are reasonable. An *Operator's* refusal shall be strongly justified and shall be communicated to the one requesting interconnection and also transmitted to ANRC.

(2) The *Operator* shall provide, upon *Beneficiary's* request, the interconnection inside the spaces under paragraph (1), in accordance with the provisions of art. 8, in case there is a physical link between the *Beneficiary's* space and the space where an *Operator's* certain router is located.

(3) Upon *Beneficiary's* request, in case paragraph (2) is not complied with and the above-mentioned physical link exists between the two spaces, the *Operator* shall provide interconnection at that point in accordance with art.9.

(4) Upon *Beneficiary's* request, in case conditions under paragraph (2) and (3) are not complied with, the *Operator* shall provide the interconnection to a certain router inside its own spaces, in accordance with art. 11. In case interconnection inside *Operator's* spaces cannot be validly achieved, the *Operator* shall provide a distance interconnection at this router using an IP located in the proximity of the *Operator's* space, in accordance with art. 9.

(5) In case the *Operator* provides proof that none of the possibilities under paragraphs (2)-(4) is available, the *Operator* shall provide distance interconnection, in accordance with art.9, using a link installed at *Beneficiary's* expense. The *Operator* is obliged to install the link upon *Beneficiary's* request, at a tariff equal to the installation costs.

(6) The interconnection tariffs shall remain the same regardless of the interconnection architecture.

(7) The interconnection points represent the limits of responsibilities of the two parties.

(8) The *Operator* shall include within RIO the number, size and location of all routers at local, regional, national and international level, as well as a full description of all the services provided at each of these routers. Moreover, the *Operator* shall include within RIO information on the groups of numbers sheltered by each router.

(9) The *Operator* shall also include within RIO the possible and technically justified limitations of the number of operators available for interconnection at each router.

(10) The *Operator* shall provide access to all the services necessary for the *Beneficiary* to provide his own electronic communications services. Any limitation on the services and interconnection elements shall be included within RIO.

(11) Upon request of any electronic communication networks provider, the *Operator* shall negotiate the designation of the IP for the access to each of the routers mentioned in RIO.

(12) The *Operator* shall include in RIO detailed information on the network it operates (equipment type, number and location, routes, architecture, security measures) and a map, allowing the one requesting interconnection to efficiently choose the interconnection points for the provision of traffic and to plan the development of his own networks and services.

(13) All information under paragraphs (8) and (10) shall be updated at least 10 days after the respective changes are made.

(14) Any changes to the network made within the interconnection area shall be sufficiently early notified in advance to the *Beneficiary*, but not less than 10 day before the respective change, for the services provided by the *Beneficiary* not to be affected.

#### Art.13- Interconnection standards

(1) RIO shall contain a detailed description of the technical conditions and specifications regarding the interfaces available at the interconnection points, including reference to relevant technical standards for:

- electrical and physical interface;
- transmission interface;
- signaling interface;
- where necessary, information on operational capacities provided by means of the interfaces.

(2) The relevant interconnection standards shall apply in the following order:

- standards imposed by legal provisions;
- ETSI standards;
- ITU-T standards (Recommendations on national standards);
- other standards.

#### Art.14- Quality of provided services

(1) Within RIO, the *Operator* shall provide detailed information regarding the relevant parameters set for the quality of the provided services.

(2) The *Operator* shall provide interconnection services in a non-discriminatory manner. The technical conditions, tariffs and quality of the provided services shall be similar to those ensured for *Operator's* own services or for the services provided to his divisions, branches or partners.

#### Art.15- Interconnection tariffs

The maximum tariffs that may be charged by the *Operator* for the provision of the call termination service, including the termination of calls initiated in the mobile telephony networks, as well as for the calls initiating service, are those listed in Annex 3 hereby attached.

#### Art.16- Negotiation deadline

(1) The maximum negotiating period for completing an interconnection agreement based upon RIO is of 2 months since the *Operator* received the respective request.

(2) In case the interconnection also comprises equipment collocation, the deadline of interconnection negotiation shall not be cumulated with the deadline for the collocation negotiation under Decision no. E/EI/2002 of the president of ANRC on principles and preconditions of the reference collocation offer.

(3) In case the interconnection agreement is not concluded within the term under paragraph (1), ANRC shall act in accordance with the provisions of the Decision [no.]/[date] of the president of ANRC [on the procedure for the settlement of disputes between the electronic communications services and networks providers], upon request of any of the parties submitted to ANRC within 15 days after this term expired.

#### Art.17- The interconnection implementation deadline

(1) The *Operator* shall ensure the implementation of interconnection agreements provisions, thus ensuring that the interconnection becomes operative within maximum 3 months since the interconnection agreement is signed.

(2) In case the interconnection also comprises equipment collocation, the deadline for the collocation implementation under Decision no. E/EI/ of the president of ANRC on principles and preconditions of the reference collocation offer shall not be added to the maximum term under paragraph (1) unless interconnection and collocation cannot be achieved at the same time.

(3) In case the deadline under paragraph (1) is not observed due to causes that are not parties' fault, ANRC shall closely co-operate with the representatives of the two parties in order to identify the technical and operational solutions for the fastest possible interconnection implementation.

#### Art.18- Minimum clauses

The interconnection agreements shall include the following mandatory elements:

- a) the description of the provided interconnection services;
- b) the location of the interconnection points;
- c) the technical standards, including the designation of the interfaces;
- d) the interoperability tests;
- e) the intellectual property rights;
- f) the network administration;
- g) the legal provisions on common use of resources;
- h) the procedure to be applied in case of changes to the network or to the provided service;
- i) access to associated, supplementary or advanced services;
- j) the confidentiality of certain parts of the agreement;
- k) provisions on the mutual and regular exchange of information regarding

- network development plans;
- l) the deadlines for the provision of services and delay penalties;
- m) the deadline for repairs and delay penalties;
- n) the definition of the interconnection tariffs;
- o) the payment ways and deadlines.

Art.19- Final provisions

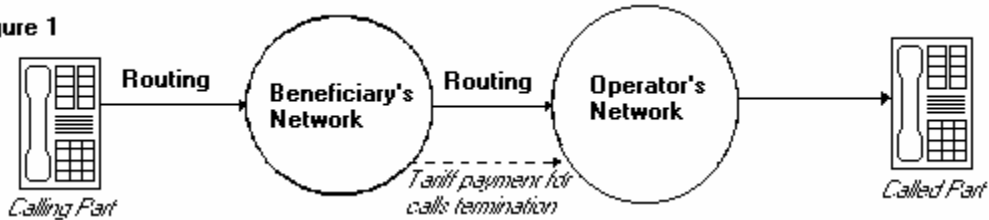
This decision shall be notified to the National Telecommunications Company "Romtelecom" – S.A.

**PRESIDENT,  
ION SMEEIANU**

**Annex 1**

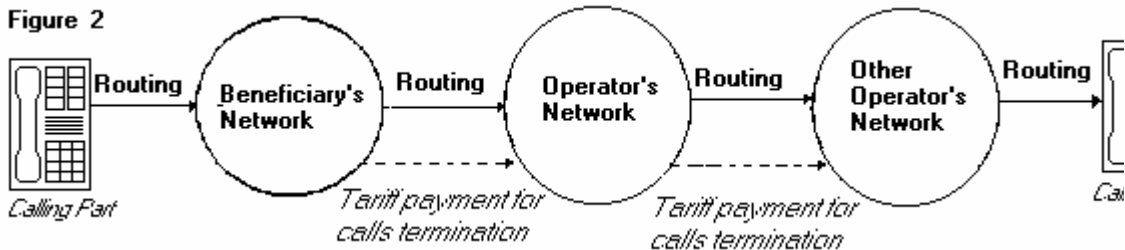
**The interconnection service for calls termination on the Operator's network**

Figure 1

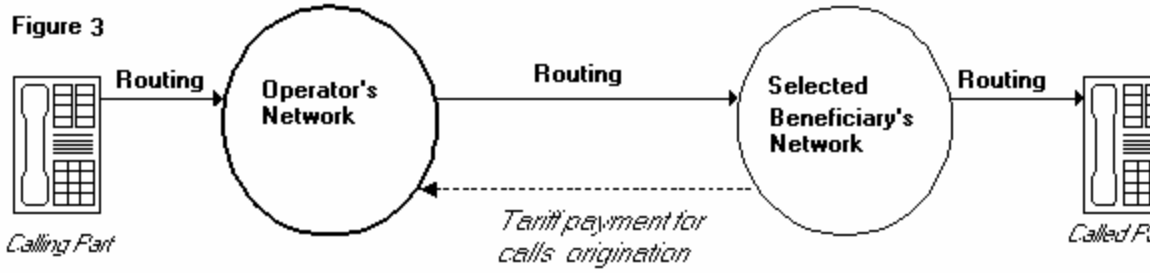


**The interconnection service for calls termination on other operator's network**

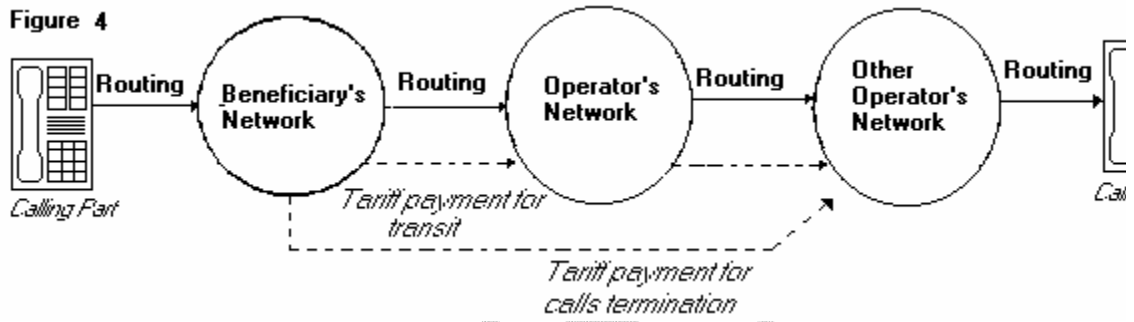
Figure 2



**The interconnection service for calls initiation (carrier selection)**

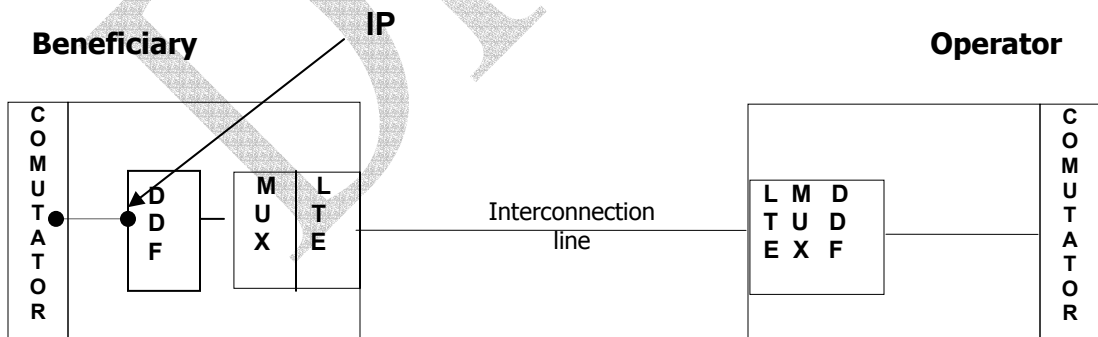


**The interconnection service for transit**

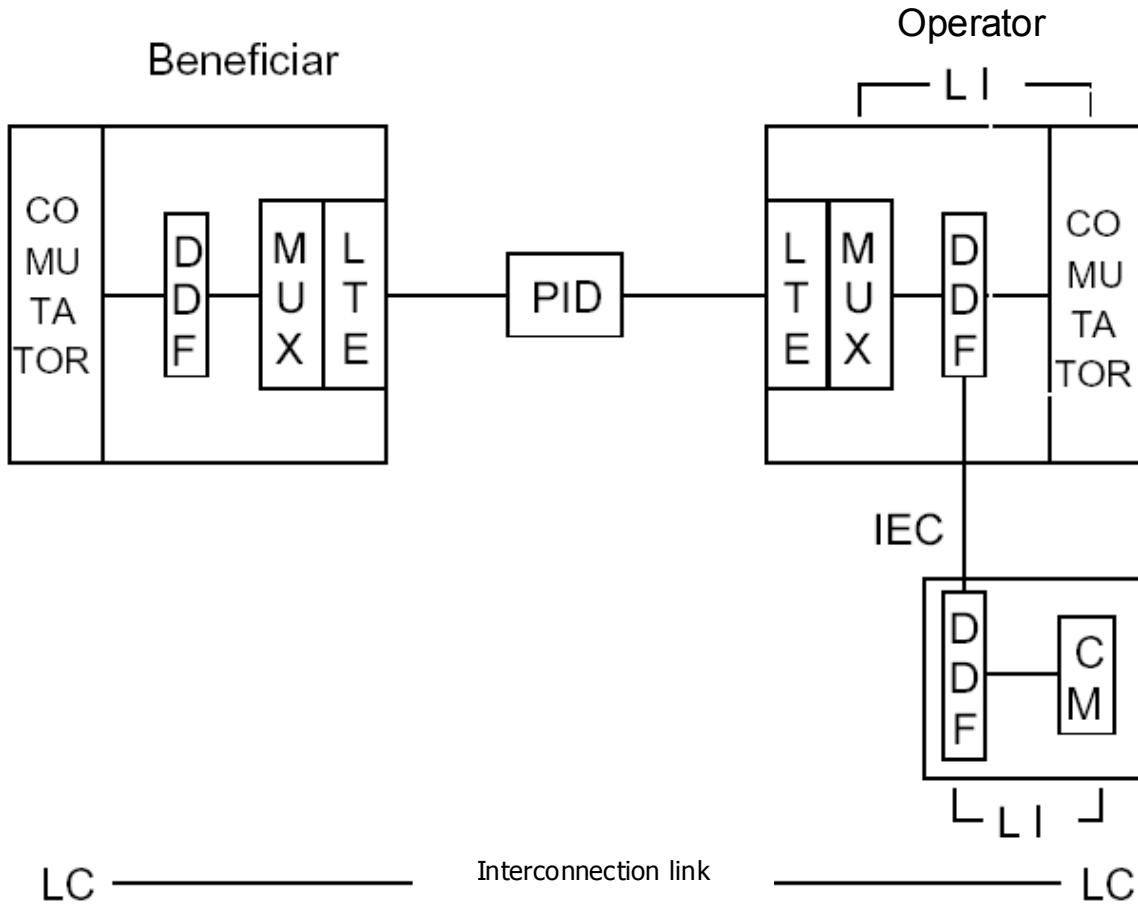


**Annex 2**

**Picture 1 – Interconnection inside Beneficiary's spaces**

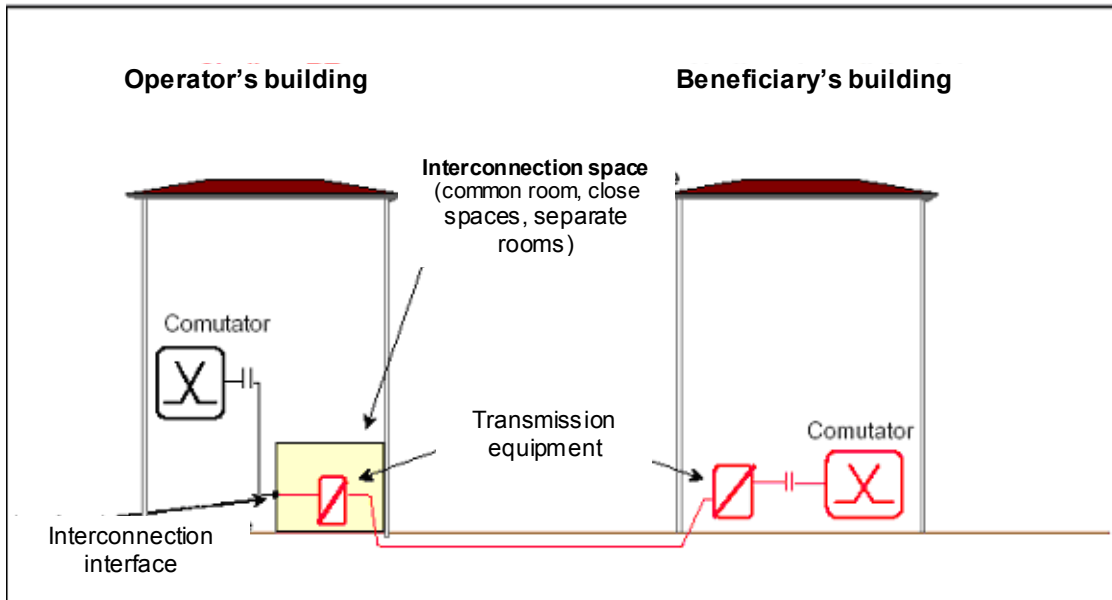


**Picture 2 – Distance interconnection and interconnection of extended circuits**



- LTE – Line Terminating Equipment
- MUX – Multiplexer
- DDF – Digital Distribution Frame
- IP – Interconnection Point
- DIP – Distance Interconnection Point

**Picture 3 – Interconnection inside Operator's spaces**



### Annex 3

#### Maximum interconnection tariffs for calls initialisation and termination services <sup>2</sup>

Interconnection level	Tariffs	
	During peak hours	Outside peak hours
Local	1.15 €cents	P*1.15 €cents
Regional	1.50 €cents	P*1.50 €cents
National	2.00 €cents	P*2.00 €cents

P is calculated as ratio between the retail tariffs charged by the *Operator* outside the peak hours and those charged during the peak hours.

<sup>2</sup> The tariffs do not include VAT.