



Office of the Director of
**Telecommunications
Regulation**

Termination Rate Reciprocity

Report on the Consultation Paper ODTR 00/42

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1. Introduction

The Director of Telecommunications Regulation (“the Director”) is responsible for the regulation of the Irish telecommunications sector in accordance with national and EU legislation.

On 4 January 2000, the ODTR received a dispute from WorldCom relating to the level of rates to be paid by the incumbent operator (*eircom*) for the termination of calls on the WorldCom network. The ODTR Dispute Resolution Procedures¹ provide that where the Director considers that an issue under dispute may affect the market generally she may consult on the matter. The Director considers that the issue of termination rate reciprocity has wide significance and importance for the industry in general and therefore published a consultation paper on the issues raised² seeking comments from interested parties. The paper addressed the possibility of developing an industry wide framework and the development of a number of general principles in relation to termination rates. The specifics of the complaint would then have been addressed within the context of a general framework based on industry consensus. Several options were put forward for comment.

The Director would like to thank the organisations that responded to the consultation paper. With the exception of material marked as confidential, comments are available for inspection at the ODTR’s office in Dublin. Responses were received from:

- Alto (Association of Licensed Telecommunications Operators)
- eircell Ltd.
- *eircom* plc
- Esat Digifone
- Esat Telecom
- GTS Ireland
- Irish Multichannel
- NTL
- OCEAN
- WorldCom

The comments received indicate to the Director that there is no consensus at this time on which to base a common framework for how the matter of reciprocity of termination rates should be handled. Furthermore, given the current stage of development of the market, industry players were not in a position to propose alternative options or principles and considered that they needed to analyse the matter

¹ See Dispute Resolution Procedures, Decision Notice D11/99, Document No. ODTR 99/53 published at the ODTR web site: www.odtr.ie

² See Termination Rate Reciprocity Consultation Paper, Document No. ODTR 00/42 published at the ODTR web site: www.odtr.ie.

in more depth before such proposals might be developed. In the light of the lack of industry support or consensus, the Director has decided at this time, not to develop a comprehensive framework for addressing reciprocity of termination rates.

Nevertheless, the Director believes that the consultation has raised valuable awareness of the various concerns associated with charges for OLO termination of calls. In this paper she sets out her report on the consultation process and some principles that shall be applied to the consideration of individual disputes on termination rates. In particular, the Director has contacted the parties to the extant dispute (*eircom* and WorldCom) and has set out a process designed to resolve that dispute as quickly as possible.

2. Background to the Consultation

In the Consultation Paper, the Director stated her preference for termination rates to be commercially negotiated between interested parties. In the event that commercial negotiations fail, the Director sought, through the consultation, to achieve a set of guidelines that might be applied to resolve differences.

3. Analysis of the Responses Received

In addition to answering the posed consultation questions, the majority of responses contained introductory sections, with a number of these being quite extensive.

Considering these introductory sections alongside the questionnaire sections, the following overall viewpoints were put forward.

Most operators agreed with the Director that commercial negotiation, with regulatory intervention in the event of a failure to secure agreement, is the best approach to the issue of OLO call termination rates. Respondents generally expressed their belief that OLOs' rates should not in any way be regulated. A number of respondents are of the opinion that regulatory involvement is only needed to prevent the incumbent operator from abusing its unequal bargaining power in the interconnection market. They noted in this context that the ability to terminate traffic on the incumbent's large network is highly valuable to the OLO while being less valuable to *eircom*. *Eircom* refuted claims of its greater bargaining power noting that it is the only organisation required by law to provide cost oriented rates. It also stated that it has to provide termination to OLO customers and so, while termination charges have proportionately less impact on *eircom*, it is still obliged to provide this service.

The majority of respondents stated that the Director should not impose guidelines although a wide variety of reasons were given in support of this view.

All respondents stated that, for various reasons, including the current stage of development of the market, further and more detailed analysis must be carried out on all of the proposals in the paper before they could accept an approach based on reciprocity to be used for agreeing OLO termination rates. Issues that they consider

require further examination include the meaning of termination and the principles that should underpin reciprocity. However, no operator suggested any alternative solutions to the Options presented in the Consultation paper.

The appendix to this report goes through the questions raised in the consultation document and the responses made.

4. Director's Position

In the responses to the consultation there were a minority of areas where consensus did emerge and these are summarised as follows:

- OLO termination rates are generally a matter for commercial negotiation.
- Although reasons differed, respondents did not consider that it was appropriate for the ODTR to impose guidelines.
- Minimal regulatory intervention was appropriate.
- Even if a general framework was appropriate (a premise generally rejected), much more work was needed before one could be defined. This would need to include the impact on other services, for example termination on mobile.

Differences of opinion – often substantial – existed in the following areas:

- What should be included within the definition of a 'termination' product.
- What would constitute a 'comparable rate' for termination and indeed what reciprocity entails.
- What principles should be embodied within a regime based on reciprocity.
- Which, if any, of the options presented might be appropriate for the Irish market.
- The existence and impact of market power or other distortions in relation to call termination.
- The extent of the Director's rights and obligations to regulate OLO termination rates.

No concrete proposals were put forward for alternative approaches in this regard.

Having considered the views put forward in response to this consultation the Director confirms her position that termination rates are best set through commercial negotiations in the first instance. Taking account in particular of the fact that operators in the industry do not consider that they are in a position to provide definitive views as to any of the options put forward, the Director does not propose to define a general framework at this stage in the market's development.

Nevertheless, the importance of this issue to all operators has been recognised. The Director possesses a range of powers in relation to disputes that may arise between operators when negotiating interconnection agreements³. These powers extend to and include the negotiation of termination rates. The functions of the Director including the power to intervene in disputes in order to specify issues that shall be included in

³ S. I. 15 of 1998 European Communities (Interconnection in Telecommunications) Regulations, 1998

any interconnection agreement. She may also lay down specific conditions to be observed by one or more of the parties to an agreement. To resolve disputes the Director is empowered to direct issues or conditions to be included in an interconnection agreement in order to ensure that the resolution of an inter-operator dispute represents a fair balance between the parties.

Clearly termination rates charged by all operators are of concern to the Director. The issue of termination rates is a matter that she is obliged to address in the context of an active dispute between WorldCom and *eircom*. In seeking to address these issues, the Director is at all times conscious of the obligation on her to secure adequate and efficient interconnection in the telecommunications market as required by the Interconnection Regulations.

In the event that the parties to an interconnection agreement fail to successfully negotiate mutually acceptable terms and conditions for termination, the Director, in handling any subsequent dispute on termination rates, will take into account, *inter alia* the following;

- The efforts of the parties to have negotiated in good faith and to have explored all the options available to reach a resolution.
- Recognition that networks differ and that for a given service (such as termination) different network elements are employed to deliver the service.
- Recognition of the dynamic nature of the industry and that network routing and design for OLOs is, in particular, in a stage of rapid change.
- The nature of the dispute and the extent and impact of remaining differences.
- Submissions and arguments made by the parties during the course of the negotiations.
- Any partial agreements made.
- Consumer benefits and the impact of the Director's decision on the parties.
- The Director's rights and obligations to regulate the industry generally.

The Director will adopt a consistent approach to any such disputes having regard to the legislative provisions, the principle of proportionality and taking account of the circumstances of each case.

Appendix – Comments on the questions raised

1. Introduction

In this appendix, more details are provided concerning the responses received. It is not intended to provide a complete analysis, rather to give a flavour of the various views presented.

2. Purpose of the Consultation

The Director asked if respondents agreed that OLO termination rates should be commercially negotiated.

Respondents agreed with the Director's view that OLO termination rates should be left to commercial negotiation. All rejected the view that the Director should be involved in determining a standard OLO termination rate, although some accepted that she could have a useful role in defining guidelines to facilitate commercial negotiation.

Among the specific comments received were the following:

- ODTR should only intervene in situations to prevent the incumbent operator from abusing its unequal bargaining power in the interconnection market to impose unacceptable terms and conditions on OLOs.
- OLOs have little negotiation power against the incumbent.
- An interim base rate or floor should be established from which commercial negotiations between *eircom* and OLOs can proceed.
- *eircom* is the only organisation required to provide cost-orientated and non-discriminatory prices. This puts it at a disadvantage.
- A "one size fits all" type arrangement will not work in a market that is characterised by OLO networks of different size and network topologies.

The Director's Position

- The Director agrees that OLO termination rates should be left to commercial negotiation. However, in accordance with her obligations under the Interconnection Regulations she will intervene to resolve disputes where commercial negotiations have failed.

3. The Principle of Reciprocity

Do respondents agree with the Director's view on the principle of reciprocity?

In ODTR 00/42, the Director suggested that the principle of reciprocity means that operators should pay comparable rates to terminate traffic on each other's networks as

they themselves charge for terminating traffic on behalf of other operators. The majority of operators agreed with this principle but disagreed over the details of what is meant by comparable.

Specific comments made included the following:

- Reciprocity requires neither a uniform rate for all OLOs, nor a rate that is identical to an *eircom* equivalent.
- The principle of reciprocity may not be competitively neutral.
- Reciprocity should be based on “service equivalence”, i.e. where the network components of two operators are deemed to provide equivalent termination services, the termination prices should be equal.
- It must be ensured that any guidelines do not in fact provide further scope for manipulation by the incumbent operator.
- Reciprocity, whilst representing a form of economic democracy, may not be appropriate in all circumstances.
- The principle needs to be fully explored and rationalised before comments can be made.
- Appropriate arrangements for interconnect circuits, priced on a basis that allow the correct “build versus buy” signals, must be considered in parallel with conveyance rates.

The Director’s Position

- The comments received indicate to the Director that there is no consensus at this time on which to base a common framework for how the matter of reciprocity of termination rates should be handled. Furthermore, given the current stage of development of the market, industry players were not in a position to propose alternative options or principles and considered that they needed to analyse the matter in more depth before such proposals might be developed. In the light of the lack of industry support or consensus, the Director has decided at this time, not to develop a comprehensive framework for addressing reciprocity of termination rates.

The Director asked if respondents agree that OLO termination rates should, in future, be negotiated on the basis of agreed guidelines?

Specific views expressed included the following:

- The legal basis of the ODTR to issue and enforce guidelines was questioned.
- Rules must not further restrict the ability of OLOs to negotiate fair rates for termination by forcing them to replicate the charging structure applicable to the SMP operator.
- There may be a case for establishing a deterministic structure as opposed to determining actual rates.

- Termination rates should guarantee OLOs the same level of income in respect of calls as would accrue to the incumbent under the RIO in respect of the equivalent calls, unless the OLO in question chooses otherwise.
- In order for commercial negotiation to succeed, *eircom* should be obliged to accept “reasonable rates” for OLO termination services employing the principle of reciprocity.
- A “base rate” should be established that OLOs can rely on in negotiation with *eircom*, but which OLOs are not obliged to use, thereby allowing free commercial negotiation.
- It is inappropriate at this stage, to make any regulatory decision to mandate how termination rates on OLO networks should be calculated.
- The Director should issue a set of guidelines rather than a strict formula, which she would use to resolve disputes when commercial negotiation breaks down.

The Director’s Position

- As stated above the Director believes that OLO termination rates should be negotiated on a commercial basis and that guidelines will not be imposed at this stage of the market’s development.

4. Definition of Termination

In ODTR 00/42, the Director recognised that two definitions of termination were commonly used. The first definition she suggested is used in some cases to mean only the final switching stage and the transmission systems from the switch to the customer’s network termination point (NTP), the final segment. In other cases, termination refers to the service from the POI to the customer’s NTP. The Director considered that the latter definition is consistent with the definition of termination in the RIO. Termination prices, as set out in the RIO, include both the final segment and, for tandem and double tandem, the “transit element”.

Respondents were asked whether the definition as implied by the RIO was sufficiently comprehensive for the purposes of the issues under consideration and whether there were other aspects that they consider should be taken into account.

The replies received varied considerably in their interpretations. Specific comments included the following.

- The ODTR should ensure that principles based on the structure of *eircom*’s network are not forced on OLOs as to do so would give an artificial result.
- The inclusion of a “transit element” in the definition of termination is a complex one that requires further analysis.

The Director’s Position

- There was very little consensus among operators as to the most appropriate definition of termination. The Director has therefore decided not to propose any definition of termination in the context of guidelines for agreement of reciprocal termination rates.

5. Principles for Reciprocity

In proposing reciprocity, the Director suggested a number of principles to be adopted. The Director asked respondents whether they agreed with these principles, and if not asked respondents to give their reasons, and propose alternatives.

Specific comments received included the following:

- Competitive telecommunications operators have networks that differ significantly in their topology from those of incumbents.
- The issue of economic efficiency is wider than network design and routing.
- Appropriate arrangements for interconnect circuits are an essential pre-requisite to efficient network design.
- Arrangements must avoid perverse results which may arise from a less efficient operator being able to take advantage of lower call termination on a more efficient network, whilst the more efficient operator pays more for call termination on the less efficient network.
- Uniform termination rates are inconsistent with efficiency
- The principles provide only partial and distorted incentives for network design.
- The principles fail to recognise that *eircom*'s and OLOs' networks are designed to cater for different markets, traffic flows, demand profiles and to satisfy different economic and social objectives.
- Operators should be provided with an incentive to build their networks, but only when it is economically efficient to do so.

The Director's Position

- In summary some operators expressed broad agreement with the principles. However they did so under the proviso that OLO operators should be free to negotiate their own termination rates and that these principles should mainly be applied to preventing the SMP operator from abusing its position. Conversely, *eircom* noted that because its network and obligations differ from OLOs, the meaning of efficiency differs as a consequence. Other operators rejected the principles.
- While the Director believes that the principles set out in the Consultation Paper provide a reasonable basis for agreement of termination rates, she does not intend to apply these as industry wide guidelines at this stage for the reasons set out earlier.

6. Options

In considering the appropriate guidelines for termination rate reciprocity, the Director proposed a number of approaches. The Director asked respondents whether they agreed with the analysis, on an option-by-option basis, as set out in section 8 of the consultation paper. In summary the options were:

Option 8.1 OLO to *eircom* calls charged depending on the number of switching stages used by the OLO.

Option 8.2 OLOs receive a termination rate dependent upon the level in the network hierarchy of the last or highest switch used in the originating network.

Option 8.3 OLO's charge is based on what it would have cost *eircom* to route the same call.

Option 8.4 OLO's charge is based on an estimate of average cost to *eircom* of handling the same call.

8.4.1 Use an average cost based on the OLO to *eircom* traffic.

8.4.2 Estimation of weights based on all terminating traffic.

8.4.3 Estimation based on a theoretical calculation of an efficient routing algorithm.

In the Consultation Paper the Director posed a number of questions in relation to the options presented. In the interests of clarity, the format of responses in this report is based on the questions asked, rather than the individual options.

The Director then asked whether there were any other options that respondents wished to propose?

No operator proposed alternative solutions and options to those presented by the Director in the Consultation Paper. Some operators believed that given more time and greater consultation with the industry, they would be in a position to propose other options.

The Director asked respondents if there were options that they strongly opposed and to give their reasons why.

Some of the specific comments received were as follows:

- Option 8.1 would tend to penalise OLOs for their efficient network topologies.
- Option 8.3 has little to recommend it as it would be impractical to implement.
- Option 8.4 would be inherently problematic to implement.
- A netting-off approach (included in option 8.4.1) would present a serious danger to the transit market and might provide little incentive to develop more efficient POI arrangements.
- The calculation of a single average to be used by all OLOs would inevitably benefit some OLOs at the expense of others.
- Option 8.4.1 could compensate OLOs for unnecessary network resources and could lead to inefficient uniform termination charges.
- Option 8.2 could lead to inefficient network design. This option is impractical for transit calls from customers such as Digifone, eircell, international operators and local OLOs.

Opposition to specific options was as follows:

- Option 8.1 is strongly opposed by Esat Telecom, NTL, WorldCom & OCEAN as it ignores the different network topology and functionality of OLOs.
- Option 8.2 is opposed by *eircom*.
- Option 8.3 is also opposed by Esat Telecom, NTL , OCEAN, WorldCom & *eircom* stating that it would be impractical and costly to implement.
- Option 8.4 (& its variants) is opposed by Esat Telecom, *eircom*, OCEAN and NTL .

The Director asked respondents to indicate their preference for the options and to provide reasons.

Specific comments included the following:

- Option 8.2, if present flaws are addressed, could provide a basis on which it may be possible to proceed.
- It is not possible to indicate a preferred option at this early stage.
- Option 8.1 provides OLOs with an incentive to design their networks efficiently.
- Option 8.2 is only applicable to local calls - long-distance calls would need to be treated differently.
- The impact of interconnect links has not been considered; appropriate arrangements for interconnect circuits (including prices) are essential for ensuring efficient decisions on routing and POIs.

Support for specific options was as follows:

- Option 8.1 is the preferred option for *eircom* only.
- Option 8.2 subject to much further analysis and consideration, is the preferred option for OCEAN, NTL, Esat Telecom, Worldcom and Alto.
- Option 8.3 is the preferred option for Irish Multichannel.
- GTS, eircell and Esat Digifone did not indicate a preferred option in their submissions.

The Director's Position

- The Director notes that the majority of respondents agreed (albeit subject to caveats) with her preference for Option 8.2. However, she also notes that operators believed that the options presented require much greater analysis given the enormous complexity and potential problems that could occur, and qualified their support appropriately. As already stated, she does not consider it appropriate to recommend any particular option as part of industry wide guidelines at this stage.