



Market Analysis – Interconnection markets

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(current consultations), to arrive on or before 5.30pm, Monday
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Ms. Ruth Kenny
Commission for Communications Regulation
Irish Life Centre
Abbey Street
Freeport
Dublin 1
Ireland

Ph: +353-1-8049600 Fax: +353-1-804 9680 Email:
ruth.kenny@comreg.ie

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1 Executive Summary

- 1.1 The new communications regulatory framework requires that ComReg define relevant markets appropriate to national circumstances, including relevant geographic markets within its territory, in accordance with the market definition procedure outlined in the *Framework Regulations*. In addition, ComReg is required to conduct an analysis of the relevant markets to decide whether or not they are effectively competitive and, having identified competition problems, propose appropriate regulatory measures.
- 1.2 The *Framework Regulations* further require that the market analysis procedure under Regulation 27 be carried out as soon as possible after ComReg defines a relevant market, which takes places as soon as possible after the adoption, or subsequent revision, of the Recommendation on relevant product and service markets (“*the Relevant Markets Recommendation*”) by the EU Commission.¹ In carrying out market definition and market analysis, ComReg must take the utmost account of the *Relevant Markets Recommendation* and the Commission's Guidelines on Market Analysis and Significant Market Power (“*The Guidelines*”).
- 1.3 ComReg would welcome comments from all interested parties on the questions posed in this market review and will accept written comments on or before 6th December 2004. Under Article 19 of the Framework Regulation and in order to promote further openness and transparency, ComReg will publish the names of all respondents and will make available for inspection responses to the consultation at its offices². Material which is identified as being confidential is not made available to the public. Under Article 17 of the Framework Regulation, ComReg is obliged to share any information relevant to the market analysis, with the European Commission. The Commission may share this information with other National Regulatory Authorities (NRAs).
- 1.4 The markets defined for the wholesale interconnection markets on fixed networks are as follows:
 - National market for wholesale call origination services provided over public telephone networks at a fixed location;
 - National markets for wholesale call termination services used to provide retail calls to end-users on each public telephone network, provided at a fixed location;
 - National market for wholesale call termination services used to provide retail calls to service providers on public telephone networks, provided at a fixed location; and
 - National market for wholesale call transit services on the public telephone networks provided at a fixed location.
- 1.5 The national market for wholesale call transit services excludes international transit services. Competition law provides an appropriate mechanism to ensure that pricing and the other terms and conditions of supply of international transit function competitively.

¹ Regulations 26 and 27.

² This is subject to confidentiality. Respondents are asked to clearly identify material which is to be treated as confidential.

- 1.6 The markets defined were analysed to see if there was evidence of market power. The analyses took into consideration a range of factors in the assessment of market power including; high market shares; pricing behaviour; conduct which would indicate market power; countervailing buyer power; barriers to entry and potential competition; the ability to leverage and vertical integration.
- 1.7 The market analysis of these markets found that eircom has SMP in the wholesale market for call origination on the fixed public telephone network. eircom's market share has ranged between 80-85% over the last three years. In addition, other SMP criteria, such as the absence of countervailing buyer power, the existence of high and non-transitory entry barriers or the ability to leverage market power from one market to another, are strong indicators of the existence of significant market power in this market. ComReg does not think it is likely that any current service provider can or will impose a competitive constraint on eircom, and does not believe that any entity will develop the ability to do so within the lifetime of this review.
- 1.8 The market analysis found that each fixed network operator should be designated as having SMP in the wholesale market for call termination for calls to end-users on its fixed public telephone network. The market share of each network operator is 100%. Further, eircom should be designated as having SMP in the wholesale fixed market for termination of calls to service providers. eircom has a market share of approximately 80% in this market. Other criteria, such as market behaviour, the absence of countervailing buyer power and the ability to leverage market power from one market to another, are also strong indicators of significant market power in both of these markets.
- 1.9 The market analysis of the wholesale transit market shows that eircom has SMP with a market share ranging between 68-74% over the last three years. ComReg has also relied on other indicators such as pricing behaviour, absence of countervailing buyer power, economies of scale and scope and existence of entry barriers in determining the level competition in this market.
- 1.10 According to the *Guidelines* the purpose of imposing *ex ante* obligations on undertakings designated as having SMP is to ensure that undertakings cannot use their market power to restrict or distort competition in the relevant market, or to lever market power into an adjacent market.
- 1.11 The *Guidelines* make it clear that the designation of SMP, without imposing any regulatory obligations, is inconsistent with the provisions of the new regulatory framework, notably Article 27 (4) of the *Framework Regulations*.
- 1.12 ComReg has identified potential competition problems in the markets for wholesale call origination, call termination (of calls to end-users and calls to service providers) and transit services, associated with single market dominance, and with vertical and horizontal leveraging. ComReg proposes that remedies are required to address these problems.
- 1.13 ComReg is obliged to impose obligations listed in Articles 9 to Article 13 inclusive of the Access Directive³ which are as follows:
 - Obligation of transparency
 - Obligation of non-discrimination
 - Obligation of accounting separation

³ Article 8(2) of Access Directive

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Obligation of access to, and use of, specific network facilities

Price control and cost accounting obligations

- 1.14 ComReg has identified a range of obligations which it proposes should be imposed on the operators with significant market power in the markets defined in this review. These obligations are considered to be appropriate, proportionate and justified, in light of the competition problems identified.
- 1.15 This document is a consultation document. ComReg welcomes comments from all interested parties on the questions posed in this review (the full list of consultation questions is set out in Annex A). Written comments will be accepted up until close of business on 6th December 2004. As required by Regulation 20 of the *Framework Regulations*, the draft measure will then be made accessible to the European Commission and National Regulatory Authorities in other member states of the European Community prior to taking a final decision.

2 Introduction

Objectives under the Communications Act 2002

- 2.1 Section 12 of the Communications Regulation Act 2002 outlines the objectives of ComReg in exercising its functions. In relation to the provision of electronic communications networks, electronic communications services and associated facilities these objectives are to:
- (i) to promote competition
 - (ii) to contribute to the development of the internal market, and
 - (iii) to promote the interests of users within the European Union.
- 2.2 This review is in line with the objectives set out in the Communications Regulation Act 2002, in particular as ComReg seeks to promote competition and ensure that end-users derive the maximum benefit in terms of price, choice and quality.

Regulatory Framework

- 2.3 Four sets of Regulations,⁴ which transpose into Irish law four European Community directives on electronic communications and services,⁵ entered into force in Ireland on 25 July 2003. The final element of the EU electronic communications regulatory package, the Privacy and Electronic Communications Directive, was transposed into Irish law on 6 November 2003.
- 2.4 The new communications regulatory framework requires that ComReg define relevant markets appropriate to national circumstances, including relevant geographic markets within its territory, in accordance with the market definition procedure outlined in the Framework Regulations.⁶ In addition, ComReg is required

⁴ Namely, the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003 (S.I. No. 307 of 2003), ("the *Framework Regulations*"); the European Communities (Electronic Communications) (Authorisation) Regulations, 2003 (S.I. No. 306 of 2003), ("the *Authorisation Regulations*"); the European Communities (Electronic Communications) (Access) Regulations 2003 (S.I. No. 305 of 2003), ("the *Access Regulations*"); the European Communities (European Communications) (Universal Service and Users' Rights) Regulations 2003 (S.I. No. 308 of 2003), ("the *Universal Service Regulations*").

⁵ The new regulatory framework for electronic communications networks and services, comprising of Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, ("the *Framework Directive*"), OJ 2002 L 108/33, and four other Directives (collectively referred to as "the *Specific Directives*"), namely: Directive 2002/20/EC of the European Parliament and of the Council on the authorisation of electronic communications networks and services, ("the *Authorisation Directive*"), OJ 2002 L 108/21; Directive 2002/19/EC of the European Parliament and of the Council on access to, and interconnection of, electronic communications networks and services, ("the *Access Directive*"), OJ 2002 L 108/7; Directive 2002/22/EC of the European Parliament and of the Council on universal service and users' rights relating to electronic communications networks and services, ("the *Universal Service Directive*"), OJ 2002 L 108/51; and the Directive 2002/58/EC of the European Parliament and of the Council concerning the processing of personal data and the protection of privacy in the electronic communications sector, ("the *Privacy and Electronic Communications Directive*"), OJ 2002 L 201/37.

⁶ Regulation 26.

to conduct an analysis of the relevant markets to decide whether or not they are effectively competitive⁷. Where it concludes that the relevant market is not effectively competitive (i.e. where there are one or more undertakings with significant market power (“SMP”)), the Framework Regulations provide that it must identify the undertakings with SMP on that market and impose on such undertakings such specific regulatory obligations as it considers appropriate⁸. Alternatively, where it concludes that the relevant market is effectively competitive, the Framework Regulations oblige ComReg not to impose any new regulatory obligations on any undertaking in that relevant market. If ComReg has previously imposed sector-specific regulatory obligations on undertakings in that relevant market, it must withdraw such obligations and may not impose new obligations on those undertaking(s).⁹

- 2.5 The Framework Regulations further require that the market analysis procedure under Regulation 27 be carried out subsequent to ComReg defining a relevant market, which is to occur as soon as possible after the adoption, or subsequent revision, of the Recommendation on relevant product and service markets (“*the Relevant Markets Recommendation*”) by the EU Commission¹⁰. In carrying out market definition and market analysis, ComReg must take the utmost account of the Relevant Market Recommendation and the Commission's Guidelines on Market Analysis and Significant Market Power (“*The Guidelines*”).

Consultation

- 2.6 All comments to this Public Consultation are welcome. However, it would make the task of analysing responses easier if comments were referenced to the relevant question numbers from this document.
- 2.7 The consultation period will run from 22nd October 2004 to 6th December 2004 during which ComReg welcomes written comments on any of the issues raised in this paper.
- 2.8 Any confidential information that is to be considered as part of a response to the consultation, should be in an annex to the non-confidential comments.
- 2.9 As required by Regulation 20 of the Framework Regulations, the relevant draft measure related to the markets discussed will be made accessible to the European Commission and the national regulatory authorities in other member states of the European Community prior to taking the measure.

ComReg procedure

- 2.10 ComReg has collected market data from a variety of internal and external sources, including users and providers of electronic communications networks and services (“ECNS”), and from consumer surveys commissioned by ComReg, in order to carry out its respective market definition and market analysis procedures based on

⁷ Regulation 27.

⁸ Regulation 27(4).

⁹ Regulation 27(3).

¹⁰ Regulations 26 and 27.

established economic and legal principles, and taking the utmost account of the Relevant Markets Recommendation and *the Guidelines*.

Liaison with Competition Authority

2.11 There is a requirement on National Regulatory Authorities (NRAs) to co-operate with National Competition Authorities (NCAs) throughout the process of market definition and analysis. In December 2002, ComReg signed a co-operation agreement with the Competition Authority for a period of three years.¹¹ To facilitate market review decision-making, a Steering Group including a representative from the Competition Authority was established by ComReg. Through this forum, the Competition Authority has been informed and involved throughout the market review decision making process.

Structure of this document

2.12 The remainder of this consultation document is structured as follows:

- Section 3 presents ComReg's preliminary conclusions on the definition of the interconnection markets. This section consists of a review of the market definition procedure and its scope, as well as demand- and supply-side assessments at the wholesale and retail level;
- Section 4 presents ComReg's market analysis for the markets listed above and presents ComReg's preliminary view on whether these markets are effectively competitive;
- Section 5 presents ComReg's preliminary view on those undertakings with significant market power in the interconnection markets;
- Section 6 provides a discussion of the general principles associated with remedies and outlines a range of possible, as well as our likely proposed remedies, under the new regulatory framework;
- Section 7 provides a discussion of the treatment of other services necessary for the provision of interconnection services;
- Section 8 outlines the nature of the regulatory impact assessment that needs to be conducted in relation to any proposed regulatory intervention regarding these markets;
- Section 9 provides details with regard to the submission of comments on this consultation document.

¹¹ ComReg Document No. 03/06

3 Relevant Market Definition

Scope of Review

- 3.1 The markets considered in this review encompass a range of wholesale services provided over fixed public narrowband networks that are necessary inputs for entities seeking to provide fixed public narrowband retail services.
- 3.2 The EU Commission recommends, in its Relevant Markets Recommendation, that NRAs should analyse the relevant wholesale markets for:
- Call origination on the public telephone network provided at a fixed location (including local call conveyance), where origination is delineated in such a way as to be consistent with the delineated boundaries for the markets for call transit and for call termination on the public telephone network provided at a fixed location;
 - Call termination on individual public telephone networks provided at a fixed location (including local call conveyance), where termination is delineated in such a way as to be consistent with the delineated boundaries for the markets for call origination and for call transit on the public telephone network provided at a fixed location; and
 - Transit services in the fixed public telephone network, where such services are delineated in such a way as to be consistent with the delineated boundaries for the markets for call origination and for call termination on the public telephone network provided at a fixed location.
- 3.3 *The Relevant Markets Recommendation* defines call origination services as access or interconnection which can be provided in the form of minutes or capacity. Call origination may also be supplied together with switching and/or call conveyance services. The relevant market is considered to comprise of call origination for telephone calls, including accessing dial-up internet service provision.
- 3.4 *The Relevant Markets Recommendation* considers that call termination is required in order to terminate calls. In Ireland, operators may interconnect at relatively high levels in the network and consequently call termination arrangements may, in practice, comprise call conveyance as well as local termination. However, since operators faced by a price increase in high level termination could purchase local call termination separately from the call conveyance part, it concludes that it makes sense to focus on local call termination as the relevant call termination market.
- 3.5 *The Relevant Markets Recommendation* considers that a demand and supply-side substitutability analysis of call termination leads to the conclusion that the relevant markets are individual networks.
- 3.6 ComReg has considered the appropriateness of these three market definitions and the appropriate delineation of the boundaries between the relevant markets for Ireland.
- 3.7 In related consultations, ComReg has considered the downstream retail markets which require interconnection services as inputs. The markets defined can be seen in Market Analysis – Retail Fixed Narrowband Access Markets ComReg document (04/94), and Market Analysis – Retail Fixed Calls Markets ComReg document (04/95). The definition of markets containing other wholesale services which can be used as inputs to provide some of the same or similar retail services are found in the following ComReg documents; for example, Response to consultation and consultation on draft decision – Market Analysis – Wholesale unbundled access

(including shared access) to metallic loops and sub-loops, ComReg document (04/40). Further, ComReg has considered a range of the issues surrounding termination, in the context of wholesale voice call termination on individual mobile networks; see Response to consultation and Notification to the EC on wholesale voice termination on individual networks, ComReg document (04/62a). The present analysis is carried out in the context of the analytical framework constructed through these reviews as a whole.

Q. 1. Do you agree with the scope of ComReg's review of the interconnection market? Please elaborate on your response.

Wholesale Market Definition: Boundaries between Call Origination, Call Termination and Transit

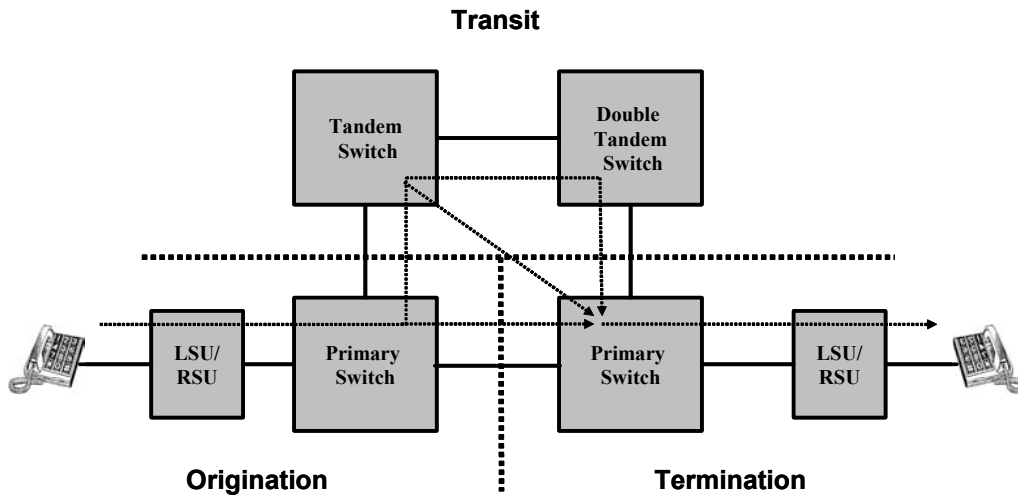
- 3.8 The wholesale elements required to supply retail telephone services are call origination, call conveyance and call termination. In exercising their powers to define the boundaries between the different types of interconnection service, NRAs must ensure that these elements sum to make the whole. As a result, transit is effectively defined by default, as the service, if any, between origination and termination.
- 3.9 The EC treats call origination as intrinsically a local service, and termination as a service which, as outlined above, can contain call conveyance as well as local call termination, but which is more effectively considered as simply a local service.
- 3.10 The EC delineates all carriage between tandem switches as transit. This leaves the call conveyance between call origination and call termination involving no - or only one - tandem switch to be placed in the category which the NRA considers most appropriate. It also considers that the delineation between call origination and transit services (and, presumably, between call termination and transit services) is a function of network topology and the boundaries can therefore be set so as to suit local circumstances.
- 3.11 ComReg takes the view that because a particular item of equipment may perform different functions in conveying different call types, tandem/transit conveyance should be defined by reference to the routing of the call rather than the items of equipment used to route the particular call. For this reason, it intends to correlate the EC's terminology with eircom's existing definitions of primary, single tandem and double tandem conveyance.
- 3.12 ComReg proposes to functionally define the boundaries of the relevant markets for 'origination' and 'termination' as congruent with those functions performed by a local exchange, directly connected to a customer in originating and terminating a call, in exactly the same way that eircom currently defines its primary origination and primary termination conveyance.¹²
- 3.13 Origination services incorporate carriage from the end-user's local loop, including the concentrator (local or remote (Local Subscriber Unit or Remote Subscriber Unit in the diagrams that follow)), but excluding the subscriber's line card in its entirety,

¹² www.eircomwholesale.ie – eircom Reference Interconnect Offer, Annex A of the Standard Contract

through the primary switching stage to the next element in the call routing. The Line Unit is the concentrator of the exchange, which may either be local to, or remote from the main switching element itself. The Subscriber Line Card is a PCB (Printed Circuit Board) which forms the interface between the local loop and the access network. The functions on the card are necessary for the proper operation of the loop and they are dedicated to line by line and cannot be shared. ComReg classifies these as entirely within the bundled local loop that eircom wholesale provides to its retail arm. An OAO, on unbundling a line, provides its own Subscriber Line Card to attach to eircom's unbundled loop. ComReg has argued that the costs of the card must be considered as a whole as costing and exchange at PCB level is questionable, while further subdivision of cost within a card is increasingly arbitrary. Thus the total cost of the line card is ascribed to the access network, and none to the core network, when the line card is provided by eircom wholesale to eircom retail. An OAO renting an unbundled loop finds that it comes without a line card and has to provide its own, bearing the total cost of the card.

- 3.14 Thus, in the case of an own exchange call (which is a call originating and terminating on the operators own network and which is on the same exchange), local call conveyance takes the call from the local loop to the mid point of the switch and local call termination completes the call, from that mid point to another local loop served by the same exchange. Where a local call is not an own exchange call, origination and termination are carried out by different local exchanges and the transmission plant between these exchanges is shared between the services. Primary call origination similarly takes the call from the local loop to a local point of interconnection and primary call termination receives the call at that point and roots it to the terminating local loop.
- 3.15 Transit conveyance then comprises all other elements of call routing, involving at least one tandem exchange. Transit will therefore embrace the tandem and double tandem elements of calls which eircom currently classify as 'call origination/termination - tandem' and call 'origination/termination - double tandem', while these calls will also involve either call origination or termination, respectively. Transit exchanges may be part of the originating operator's network, the terminating operator's network, or a third parties' network. In the case of multifunctional exchanges, the same exchange may originate or terminate some calls and transit other calls (when local loops which it serves are not involved in either the inbound or outbound leg of the call).
- 3.16 While the majority of tandem switches are specifically designed for the purpose of switching calls between other exchanges, (i.e. they operate together with primary exchanges), multi-functional exchanges are capable of performing both functions. Such exchanges function as tandem exchanges when connecting two inter-exchange ports across their switch block and as primary/local exchanges when they connect an end-user port to an inter-exchange port, or to another end-user port. Handling end-users is more expensive than passing traffic between exchanges so that simple tandem exchanges offer cost advantages. However, where space is limited and/or expensive i.e. central Dublin, it may make sense to install multi-function exchanges.
- 3.17 eircom's current tandem and double tandem call origination charges incorporate elements of both call origination and transit. This method of charging is sensible for calls involving both call origination and transit and reflects the fact that the transit stage can involve either one or two tandem exchanges.

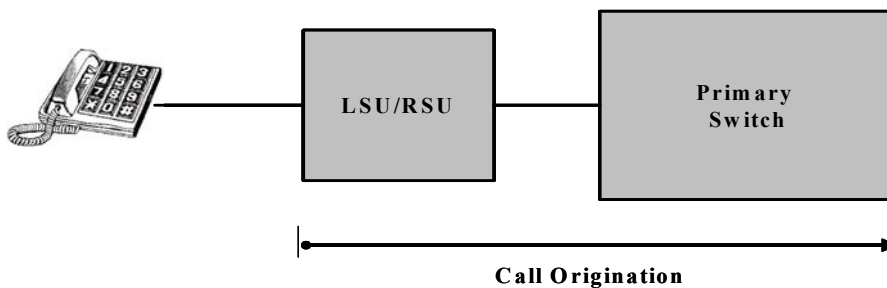
3.18 The elements of the relevant wholesale services can be illustrated as follows:



3.19 A separate annex to this Consultation (Document 04/106b) illustrates how ComReg proposes to draw the boundaries between call origination, call termination and transit services by reference to common fixed call routings.

Market Definition: Call Origination

3.20 Origination services provide primary switching functionality at the beginning of a call. They incorporate carriage from the end of the end-user's local loop (which loop includes the subscriber's line unit, or card, in its entirety), through the primary switching exchange, including the concentrator (local or remote - Local Subscriber Unit or Remote Subscriber Unit in the diagram below), to the next stage in the call routing (either call termination or transit).



3.21 ComReg takes the view that the scope of the wholesale market definition is conditioned by the extent to which operators require access and origination services to be able to provide the relevant range of retail narrowband services. Thus, demand for call origination services stems from:

- indirect service providers (Carrier Pre-Selection (CPS), Carrier Selection (CS), Carrier Access (CA)) purchasing simple call conveyance from the Access Provider

(currently eircom's call origination services) possibly together with Wholesale Line Rental (WLR); and

- terminating (and transit) providers seeking to carry and/or terminate calls (including self-provision of call termination by the originating operator).

3.22 In defining the relevant wholesale origination services market, ComReg has addressed the following issues:

- whether fixed origination services, self-provided access and origination services using owned facilities, and/or purchased facilities and/or leased facilities belong in the same relevant product market;
- whether self-supply should be included in the relevant product market, together with wholesale services provided to third party retail service providers;
- whether wholesale services provided over different fixed networks belong in the same relevant product market;
- whether the supply of wholesale metered and unmetered call origination services belong in the same market;
- whether origination services provided for the provision of retail calls to end-users and calls to service providers fall within the same relevant market; and
- whether origination services for retail calls to DQ and OA services (and subsequent call completion) fall into the market into which other origination services to service providers fall.

Do fixed origination services, construction of alternative facilities and purchased or leased network connections belong in the same relevant product market?

Demand-side substitutability

Comment: Numbering?

3.23 Call origination on the public telephone network provided at a fixed location entails the conveyance of a switched call from the end-user customer's access network through the primary switching exchange to the next stage in the call routing. In addition, ancillary billing, collection and credit and risk management services are ordinarily provided alongside the carriage services.

3.24 Call origination can be 'self-provided' by a network operator (who provides the end-user network connection, local access network and the transmission services over the connection) or provided by such a network operator to third party service providers. Therefore, a new entrant service provider could consider constructing an alternative end-user network connection, to avoid having to acquire origination services. A small amount of such green field alternative end-user network connection construction occurred historically through the construction of cable networks. However, there has been little brown field upgrading of installed uni-directional cable networks to facilitate the provision of retail voice telephony services. ComReg does not believe that, within the timeframe of the review, additional cable network construction (either greenfield or brownfield) is likely to occur that would provide alternative end-user network connections. Likewise, Fixed Wireless Access (FWA) also needs to be considered in this market definition. Currently, eircom and EsatBT provide services in the 3.5 GHz and 26GHz band via FWA. Both voice and Internet

services can be delivered to end-users over these platforms. At present, the service tends to be limited to specific areas and, to some extent, the use of narrowband FWA can be seen as choice of supply by the supplier (since eircom and EsatBT are currently the only operators of narrowband FWA services), rather than a choice of product demanded by the user. There are currently close to 2,000 users of narrowband FWA in Ireland representing approximately 0.1% of exchange lines.

- 3.25 Because of the sheer cost of construction of alternative local access networks, ComReg does not believe that the construction of such alternative end-user connections is a viable large scale substitute for origination services for providers seeking to provide retail voice call services.
- 3.26 Short of constructing an alternative network, a service provider may purchase or lease the end-user network connection from the network operator (e.g. acquire an unbundled local loop or a leased line - including partial circuits). However, ComReg's preliminary view is that purchasing or leasing the end-user connection is not a substitute for call origination. A service provider acquiring a leased line, including the local tail terminating at the end-user's network termination point, is not acquiring a service that is functionally equivalent to wholesale origination services. A leased line provides the purchaser with control of the end-user network access point, rather than with switched carriage between that access point and the primary switching switch. It provides dedicated, rather than switched, capacity and, with an appropriately conditioned leased line, the purchaser can provide a broad scope of services to the end-user.
- 3.27 OAOs could acquire wholesale leased lines or partial private circuits to extend their networks to the customer's premises, at least for larger customer sites. However, this requires a substantial financial commitment which creates a barrier to the use of leased lines, given the inherent risk that the traffic volumes generated might not warrant the expenditure made to acquire the capacity. The pricing of origination services and terminating segments of leased lines, respectively, reflects the functional differences, and is such that it is unlikely that service providers would promptly switch between wholesale origination services and leased lines or vice versa, in response to a 5 to 10% increase in price.
- 3.28 Local Loop Unbundling (LLU) allows other companies to take over the control of the local loop facilities of the infrastructure owner. The service provider uses its own switching equipment and extends the 'unbundled local loop' to its own switching facilities, as appropriate.
- 3.29 There is a significant difference in the functionality provided by wholesale switched call origination and by Unbundled Loop Metallic Path (ULMP). Unbundled local loops give the purchaser control over the end-user's network access point and make possible the provision of a broad scope of services, going well beyond the functionality of wholesale switched origination services. However, ComReg has noted in its review of the retail fixed narrowband access market that, although ULMP can be used to provide voice services, currently the product is used predominantly for the provision of broadband access¹³. Where ULMP lines have been purchased by OAOs (and only a few hundred have been since the introduction of LLU in 2001), they are used to provide high capacity data services. All the information available to ComReg indicates that this pattern of use is unlikely to change in the foreseeable future.

¹³ See ComReg Doc. 04/94 – Market Analysis – Retail Fixed Narrowband Access Markets

- 3.30 There is a substantial pricing differential between wholesale call origination services and unbundled local loops. The disparity is particularly stark if the OAO is not intending to provide the full range of retail narrowband services over such unbundled loops (to allow the OAO to take some advantage of economics of scope to spread the costs). Furthermore, in order to offer call origination services by purchasing an unbundled local loop, it would be necessary to offer a competing national network service equivalent to eircom's. A supplier would have to un-bundle in excess of 1,000 exchanges each of which involves considerable time and costs, and to provide physical connectivity to each of those exchanges. It is unlikely that a supplier would enter the market with a view to only providing wholesale call origination services.
- 3.31 It is not envisaged that a purchaser of wholesale call origination would react to a price increase of wholesale call origination services, in the range of 10%, by a hypothetical monopolist, by purchasing an unbundled local loop or by green-field construction of alternative networks.

Supply-side substitutability

- 3.32 The key question for supply-side substitutability is whether a supplier of end-user network connections (either on a leased or purchased basis) could switch with relative ease, in a timely fashion, to providing wholesale origination services to third party service providers, in response to a 5 to 10% increase in price by a hypothetical monopolist provider, and *vice versa*. ComReg takes the preliminary view that the cost (and price) differentials and functionality differences, between the provision of end-user connections, on one hand, and wholesale call origination on the other hand, are such that suppliers would not respond to a 5 to 10% increase in price by switching supply.

Conclusion

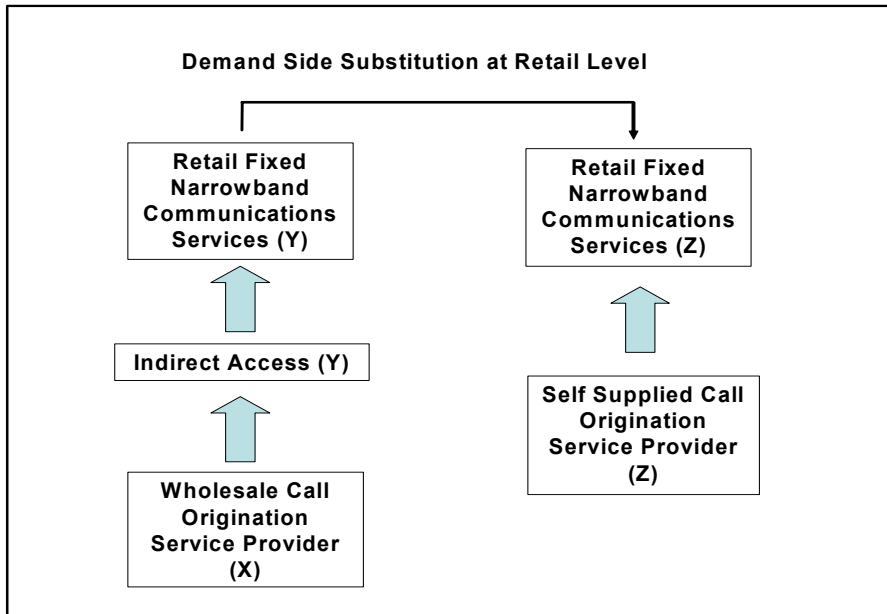
- 3.33 ComReg's preliminary conclusion is that construction of alternative facilities and/or purchased and/or leased network connections, are not in the same relevant product market as fixed origination services.

Inclusion of self-supply

- 3.34 ComReg has considered whether it is appropriate to include self-supplied wholesale origination services in the relevant product market. It is clear that suppliers of wholesale origination services both self-supply origination functionality and supply wholesale origination services to third parties (in addition to the underlying local access service). The balance of administrative practice of the European Commission has been to exclude self-supply for the purpose of defining markets. However, the Commission derogates from this general principle in circumstances in which it has determined that the characteristics of particular markets are such that self-supply exerts competitive pressure on sales to third parties. It is also important to recall that, in the absence of historical regulatory intervention, there would be few (if any) communications 'access markets'. It is clear, the sector displays strong differentiating characteristics from other sectors.
- 3.35 In effect, the hypothetical monopolist (X) supplying wholesale call origination services to indirect access providers (Y) would be subject to a competitive constraint from integrated fixed network operators (Z) at the retail level. An increase in the price of wholesale call origination would, in turn, translate into an increase in the retail price of fixed voice telephony services that incorporate the wholesale product,

assuming that the increase at the wholesale level is passed through to the retail level. As a result, indirect access providers (Y) are likely to lose customers to the integrated monopolist supplier of wholesale call origination services (Z). Accordingly, the hypothetical monopolist supplier of wholesale call origination services (X) would lose sales, while the self-supplied call origination functionality of the integrated firm would increase sales. The competitive constraint on the hypothetical monopoly supplier would come from demand.

Figure 3.1: Self Supply of Wholesale Call Origination Services



3.36 It would appear that inclusion of self-supply of call origination functionality in defining the relevant product market, reflects economic principle and is consistent with emerging Community jurisprudence and European Commission practice.

Conclusion

3.37 ComReg’s preliminary conclusion is that self-supply should be included in the relevant product market, together with wholesale services provided to third party retail service providers.

Is there a single relevant market for the supply of wholesale metered and unmetered call origination services?

Demand-side substitutability

3.38 Fixed wholesale origination services are provided both as minutes and as capacity (i.e. on a metered basis and on an unmetered basis, such as FRIACO). Functionally, both metered and unmetered wholesale origination services can be used to provide the same retail service. The difference lies entirely in the charging arrangements. It is technically and functionally feasible for retail service providers to use either metered

or unmetered wholesale origination services to provide retail metered or unmetered services.

3.39 The viability of doing so is solely a matter of the pricing of both services. The 'capped' nature of many retail unmetered services (i.e. with metered charging beyond the capped usage) further highlights the substitutability. Table 3.1, below, illustrates how both inputs are currently used in Ireland.

3.40 It is clear from Table 3.1 that both metered and unmetered wholesale services are acquired by service providers wishing to provide both metered and partially unmetered services at the retail level. All providers of 'unmetered' services offer a capped product. Thus, any attempt to draw a clear distinction between supply of metered and un-metered wholesale services by reference to the retail services provided would be unsustainable.

Product	Wholesale Product	Hours per month	Cost per Month	Notes	Excess On-Peak Per Minute	Excess Off-Peak Per Minute	Min. Contract
<i>UTVip XL</i>	Un-metered	180	€24.95	24/7 Anytime	3.8c	0.95c	3 months
<i>IOL Anytime</i>	Un-metered		€29.99		3.8c	1.3c	1 year
Eircom <i>Anytime</i>	Un-metered	150	€29.99		5.07c	1.26c	1 month
<i>UTVip Lite</i>	Un-metered	30	€9.99		3.8c	0.95c	3 months
<i>IOL Netsmart</i>	Metered	80	€21.99	Off Peak Only	3.8c	1.3c	1 month
	Metered	50	€14.99				
	Metered	30	€9.99				
Eircom: <i>Flat Rate 60</i>	Un-metered	60	€19.99		5.07c	1.26c	1 month
Eircom: <i>Flat Rate 25</i>	Un-metered	25	€9.99				

Table 3.1: Retail un-metered internet products

3.41 One operator has also explained to ComReg how it utilises Carrier Access and Carrier Select codes (both metered wholesale products) to provide a full range of services, differentiated by their retail pricing and corresponding periods of unmetered access, and how these services dovetail with those it provides using an unmetered wholesale product.

3.42 ComReg has considered current pricing differentials, the limited price trend developments for unmetered products and available qualitative evidence concerning usage patterns.

3.43 The information available to ComReg appears to suggest that, while consumers would consider obtaining an internet package with unlimited internet access for a monthly fee, households spend, on average, only 32 hours a month on-line. Survey data indicates that 50% of those surveyed would be interested in availing of a partial flat-rate internet service that provided up to 30 hours per month with a monthly subscription fee.¹⁴ As a result, truly unlimited internet access services are likely to be perceived as excessive by many. It appears that the partial flat-rate services (e.g. the capped style described above) have been developed to meet consumer demand.

¹⁴ Amarach Consumer Trend Watch – May 2003

Supply-side substitutability

- 3.44 ComReg takes the view that supply-side substitutability is such that it is clear that a hypothetical monopolist supplier of metered wholesale fixed origination services would be unable to profitably raise prices by up to 10%, because suppliers of unmetered wholesale fixed origination services would be in a position to enter the market immediately, at virtually no cost.

Conclusion

- 3.45 ComReg's preliminary conclusion is that the supply of wholesale metered and unmetered call origination services, belong in the same relevant market.

Is there a single relevant market for the supply of origination to suppliers of retail calls to end-users and calls to service providers?

- 3.46 Only the operator with control over the end-user connection (the local loop) can provide origination services on that particular network. Origination services are acquired by a number of different types of buyers: by an OAO CPS service provider; by the retail arm of the originating network operator; or by a terminating operator.
- 3.47 Where the retail services sought to be provided are calls to end-users, origination services are provided either to OAO CPS providers or are self-supplied by the originating operator. Where the retail services sought to be provided are calls to a service provider, origination services are provided to a terminating operator. The providers of both types of retail services acquire "end-to-end" connectivity (i.e. origination, termination and, where necessary transit) from their service provider (which might or might not be vertically integrated with the provider of originating/terminating services). Pricing of these services depends on the type of call made and how the relevant providers are compensated (see Annex B for more detail on pricing structures of call origination).

Origination of calls to end-users

- 3.48 In the case of calls to an end-user (charged, at the retail level, on a calling party pays basis), the calling end-user is price sensitive. The end-user has the ability to choose its originating operator, based on the level of pricing at the retail level. This ability to choose an originating operator imposes an indirect pricing constraint on the wholesale price offered for origination.
- 3.49 At the wholesale level, *a priori*, from the perspective of an operator demanding wholesale call origination (i.e. the demand-side), a purchaser of call origination will seek to acquire origination from an entity able to enable it to reach almost all end-users. Hence a ubiquitous network (such as eircom's) cannot be substituted by fragmented networks (such as the existing alternative networks in Ireland), given the small number of subscribers for which these networks can provide origination services.
- 3.50 However, on the supply-side, eircom can switch to supply origination services in response to a price increase of up to 10% by a hypothetical monopolist, supplies in relation to all but a *de minimis* number of end-users, quickly and at little cost. Thus, it appears that there is one-way substitutability between the OAOs and eircom.
- 3.51 In addition, it is also important to consider the role of the indirect retail pricing constraint imposed by self-supply (including self-supply by OAOs). This appears to

put self-originated calls (by both OAOs and eircom) into the same relevant wholesale market as origination services provided to third parties.

3.52 ComReg, therefore takes the view that the relevant product market for wholesale call origination for calls to end-users is a multi-network operator market in the sense that the market includes:

- (i) wholesale call origination provided by a nationwide network (such as eircom's); and
- (ii) self-provided calls provided by all operators (independent of network size).

Origination of calls to service providers

3.53 In the case of calls to service providers, ComReg notes that the indirect retail pricing constraint identified above also impacts on the relevant wholesale origination services acquired for the provision of end-to-end connectivity to service providers. It does so in relation to the end-user's choice of originating operator (where it has such a choice) because the end-user chooses that operator on the basis of the calls in relation to which it is price sensitive (e.g. calling-party-pays tariffed calls to end-users). As highlighted in the Market Analysis: Retail Calls Markets – ComReg Document 04/95, an end-user chooses to purchase a bundle of call services. The end-user does not choose its access provider (i.e. the operator able to provide origination services) separately for calls to end-users and calls to service providers. Hence, the calling-party-pays choice has an indirect effect in relation to wholesale origination services provided for all calls (including calls to service providers).

3.54 Directory enquiry services (including call completion services) can be considered to be a call to a service provider. Further, since they are charged on a calling-party-pays basis at the retail level, the indirect effect of the choice made by the end-user at the retail level, flows through to the wholesale level. There are only two providers of these services (Conduit and eircom). ComReg has no evidence to suggest that the origination services supplied for the purposes of providing directory enquiry services are functionally any different to such services provided for other calls to service providers or that they are provided on terms or other conditions that create significantly different dynamics of supply. As such, it appears that directory enquiry calls are part of the single relevant product market for wholesale call origination services.

3.55 Moreover, the wholesale inputs required to provide other services such as operator assisted services and related call completion services are purchased at the wholesale level in the same way that such inputs are acquired for other calling-party-pays services.

3.56 On balance, ComReg takes the view that there is a single relevant product market for wholesale origination services for calls to end-users and calls to service providers. This includes both such origination services provided for directory enquiry services, operator assisted services and call completion services.

Conclusion

3.57 ComReg's preliminary conclusion is that there is a single multi-network relevant market for wholesale call origination services.

Preliminary Conclusion

3.58 ComReg proposes that there is a relevant market for wholesale call origination services on the public telephone network provided at a fixed location.

3.59 Thus the relevant product market is defined such that;

- there are no alternative facilities or purchased or leased network connections, which would be capable of delivering fixed origination services and hence are not in the relevant product market;
- it is appropriate to include self-supply of fixed origination services in the relevant market;
- wholesale origination services provided over different fixed networks belong in a single multi network relevant product market;
- the supply of wholesale metered and unmetered call origination services belong in the same relevant market; and
- directory enquiry services and operator assisted services and other call completion services are part of the relevant market for wholesale call origination services.

Q. 2. Do you agree with the product market definition of the market for wholesale call origination services? Please elaborate on your response.

Geographic market

3.60 A relevant geographical market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in relation to which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different to those areas.¹⁵

3.61 According to the EC Guidelines, in the electronic communications sector, the definition of the geographical scope of the relevant market is generally determined with reference to the area covered by a network, and to the existence of legal and other regulatory instruments.

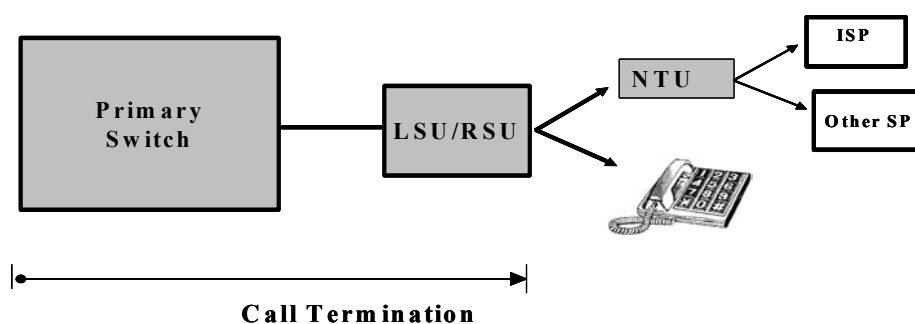
3.62 Origination services are offered to and by all operators in Ireland on terms that do not differentiate by reference to geographic location. In particular, the charges are geographically averaged. Further, geographic averaging at the retail level exerts an indirect uniform pricing constraint on wholesale call origination pricing. ComReg, thus, takes the preliminary view that there is a single national market for supply of wholesale origination services.

¹⁵ See the Commission Notice on Market Definition, SMP Guidelines, [ComReg's Market Data Information Notice] and United Brands v. Commission, [1978] ECR 207, for additional guidance.

Q. 3. Do you agree that the relevant geographic market for wholesale origination services is Ireland? Please expand in your response.

Market Definition: Call Termination

3.63 Termination services provide primary switching functionality at the terminating end of a call. They incorporate carriage from the end of the previous stage in the call routing (either call origination or transit), through the primary switching exchange, including the concentrator (local or remote - Local Subscriber Unit or Remote Subscriber Unit in the diagram below), to the end-user's local loop, including the subscriber's line unit, or card, in its entirety.



NTU: Network Terminating Unit

ISP: Internet Service Provider

SP: Service Provider

LSU: Local Subscriber Unit

RSU: Remote Subscriber Unit

3.64 Wholesale call termination services are required to be able to terminate retail calls. As a result, demand for wholesale fixed termination is driven by downstream retail voice telephony services. In essence, if end-user (X) (using a network connection on fixed network (A)) calls end-user (Y) (at a geographic number that is associated with a network termination point on fixed network (B)) or seeks to acquire the service associated with a non-geographic number assigned to a service provider hosted by fixed network (B), fixed network operator (A) provides an origination service and fixed network operator (B) provides a termination service. Only where the retail call is an on-net call are wholesale origination and termination services provided on the same network.

3.65 In defining the wholesale call termination market(s), ComReg has considered the following factors:

- whether termination services for calls to end-users and calls to service providers fall within the same relevant product market;

- whether the relevant market for wholesale call termination for calls to service providers on the public telephone network provided at a fixed location includes termination for dial-up Internet services;
- whether the relevant markets for termination of calls to end-users and termination of calls to service providers are single-network markets;
- whether self-supply is included in the relevant market for termination of calls to end-users and calls to service providers, and
- the scope of the relevant geographic market.

Do termination services for calls to end-users and calls to service providers fall within the same relevant product market?

3.66 ComReg has investigated the implications of the provision and acquisition of termination services for calls to end-users and calls to service providers, such that they might fall into separate distinct relevant markets. ComReg has considered whether a single relevant wholesale market is appropriate in Ireland.

Retail Services

- 3.67 Calls to end-users are typically calls to geographic and mobile numbers and hence require geographic termination services. They are terminated by the network operator controlling the termination point with which the called geographic number is associated, for a charge imposed on the calling party. They are priced on a calling-party-pays basis.
- 3.68 Calls to service providers, which are typically calls to non-geographic numbers, are terminated by the network operator routing the call to the termination point associated with the relevant number, hence non-geographic termination services. There are a number of different types of non-geographic voice traffic, including freephone, premium rate, shared cost, universal access and dial-up Internet access services. These are charged using differential charging models, depending on the type of call. The total retail charge for freephone services is borne by the called party. Premium rate services are charged to the calling party. Other shared cost services are charged to both the called and calling parties.
- 3.69 ComReg's Consultation on Fixed Retail Calls Markets¹⁶ has concluded that a demand side analysis shows that these retail services are not functional substitutes and do not exert pricing pressure on each other. However, an analysis of supply-side substitutability shows that suppliers of any such services would be able to switch supply to any other such services quickly and at reasonable cost in response to a 5 to 10% price increase by a hypothetical monopolist supplier of the latter service.

¹⁶ ComReg document (04/95).

Wholesale call termination services*Demand-side substitution*

3.70 It is important to differentiate between the provision of a ‘wholesale call termination’ service, either supplied to an originating or transiting operator (for onward supply to the entity supplying retail services), and other services, including ancillary services, that might be provided by the terminating operator (including hosting services provided to an Internet service provider or billing and collection services provided to a service provider).

Functional substitutability

3.71 Termination services for calls to end-users and calls to service providers are acquired by originating operators or CPS operators seeking to terminate fixed calls (i.e. such operators acquire termination services to be able to supply end-to-end connectivity to retail service providers). Further, they are self-supplied by terminating operators seeking to offer such connectivity to retail service providers. Thus, termination services for both calls to end-users and service providers are functionally equivalent services.

Pricing

3.72 There are clearly differences in the terms and conditions on which different retail services are provided which have the potential to affect demand. In particular, there would appear to be differences in the pricing (and payment) structures that are relevant (the payment flows are examined in greater detail in Annex B). The competitive dynamics in the interconnection markets are, to a large part, are shaped by the payment flows (based on calling-party-pays; called-party-pays or shared costs).

3.73 As an end-user or a service provider requires end-to-end connectivity, these payment flows are examined in their entirety, across call origination, transit and call termination:

- **Calls to end-users** (for directly connected calls) – collection of retail charges by originating operator (also operating as the supplier of retail services); originating operator retains its portion of the retail sum (reflecting billing costs, bad debts, credit control, collection and conveyance) and pays the balance to the terminating operator for termination;
- **Calls to end-users** (for CPS calls) – collection of retail charges by CPS operator (as the supplier of retail services); CPS operator pays originating operator its origination charge, retains its portion of the retail sum (reflecting billing costs, bad debts, credit control, collection and conveyance) and pays the balance to the terminating operator for termination; and
- **Calls to service provider** - collection of retail charge by terminating operator from the service provider (as the supplier of the end-to-end connectivity service to the paying party); terminating operator pays the originating operator and, where relevant, the CPSO and/or transit provider¹⁷.

3.74 Retail charges for calls to end-users are set and collected by the originating or CPS operator. As discussed in the market definition for call origination, competition between originating and CPS operators exerts downward pressure on such retail prices.

¹⁷ Annex B illustrates these payment structures.

- 3.75 The retail pricing structure for calls to end-users (based on a calling-party-pays principle) ensures that there is little pressure on termination rates from retail customers (other than when the retail service provider passes through increases in termination rates to retail customers who, as a result, become aware of such increases)¹⁸.
- 3.76 It is important to recall that the charges for retail calls to service providers include sums not referable to the underlying services provided, and are effectively determined at the outset by the service provider (through its selection of the particular number range e.g. whether it is a freephone or a premium rate number). The portion of the retail revenue that is paid to the service provider (or, in the case of freephone calls (charged on a called-party-pays basis), retained by the service provider after paying the terminating operator) is determined through negotiation between the service provider and the terminating network operator.
- 3.77 Providers of retail calls to service providers ordinarily acquire end-to-end connectivity from the operator providing termination services. However, it is important to note that within the market for call termination for calls to service providers, there can be different payment flows depending on the type of retail call for which the termination services are acquired.
- 3.78 Call termination services provided for calls charged on a calling-party-pays basis is used to provide calls such as internet access or premium rate numbers. The competitive dynamic evolves from the ability of the service provider to negotiate the price of termination.
- 3.79 Call termination services provided for calls charged on a shared cost basis is used to provide calls to a local number. Again, the service provider has the ability to negotiate the price of termination.
- 3.80 Call termination services provided for calls charged on a called-party-pays basis is primarily used for freephone calls. The called-party-pays principle means that the service provider has a clear incentive to minimise the charges it pays, or maximise those it receives, but this incentive is reflected in the commercial terms of its retail relationship with its host (terminating) network, not the inter-operator interconnect charges. In essence, the pricing pressure exerted by service providers on the terminating network operator means that, from a demand side analysis, there is a separate multi-network market for call termination services for calls to service providers.
- 3.81 Although there are different payment mechanisms and flows for each of these different call categories, ultimately the ability of the service provider to negotiate with the network operator means that these calls fall within the same relevant market for call termination services on multiple networks for calls to service providers.
- 3.82 As noted, the revenue flows between the terminating operator (or host) and the service provider is the subject of commercial negotiation.
- 3.83 ComReg has no evidence that the negotiations between the service provider and the (hosting) terminating operator impose any kind of constraint on the terminating operator's power over (termination) price (although it clearly impacts on the revenue share earned by the terminating operator). More particularly, it appears that such negotiations create an incentive for the terminating operator to increase the

¹⁸ For example, Belgacom passed through Telenet's increased termination charge to callers following Telenet's 2002 attempt to increase that termination charge.

termination retention, at the expense of the origination charge, to enable the terminating operator to offer the service provider a larger portion of the total retail revenues (or, in some instances, charge the service provider less), to reduce the extent to which it has to sacrifice its termination charge.

- 3.84 It is clear that there are a range of indirect pressures on the price setting mechanisms for termination services for retail services for calls to end-users (calling-party-pays) and calls to service providers (both called-party-pays and shared costs). However, the data available to ComReg suggests that the negotiation between originating and terminating operators remains the primary competitive driver.
- 3.85 eircom's origination and termination rates have been regulated since 2000. As a result, they represent ComReg's surrogate for competitive prices, calculated using FL-LRIC (Forward Looking Long Run Incremental Cost) cost models, rather than the result of negotiations between the parties. Further, the so-called "deemed to be" regime effectively imposes eircom's rates on OAOs. In Ireland, wholesale termination of these calls by the terminating operator invariably entails self-supply by the terminating operator's wholesale arm to its retail arm (which has the retail relationship with the ISP). The settlement fee between the originating and terminating operators is calculated by deducting the originating operator's call origination costs from the retail price for the call, as with all calls to service providers of any type. In the Irish context, the retention rate of eircom is regulated and it imposes the same rate on all other operators through the "deemed to be" regime. This works as a mechanism for cost recovery by OAOs whereby their costs are 'deemed to be' equivalent to the FLRIC costs which eircom incurs to perform the same function. We can illustrate this by looking at eircom's RIO where they describe the relationship between schedule 105 – access to eircom premium rate services, and schedule 205 – access to OAO premium rate services as follows: “* Service Schedule 205 quotes the eircom regulated retentions for Premium Rate calls. The settlement is derived from these regulated retentions on the principle of retail minus retention.
- 3.86 The reciprocal settlement for OAO access to eircom Premium Rate Service can be viewed in Service Schedule 105. The Principle of Reciprocity applies.” Which is to say that eircom recovers its costs from the retail charge paid when calling an OAO PRS and settles the balance on the OAO (schedule 205), where the customer is calling an eircom PRS the OAO deducts the same sum (which is deemed to be equal to its costs) from the retail charge and settles the balance on eircom. Thus the existence of this deemed to be regime means that few conclusions can be drawn from the actual charges currently paid.

Supply-side substitutability

- 3.87 To provide termination for calls to end-users, which requires geographic call termination, a nationwide local access network is needed, to be able to offer wholesale geographic call termination services. In contrast termination for calls to service providers requires non-geographic termination and thus can be provided without ubiquitous coverage (e.g. in a concentrated area such as a business park). In essence, non-geographic termination does not require a nationwide ubiquitous network, an essential for the provision of geographic termination. This means that it is easier for new entrants to begin providing termination services for calls to service providers than termination services for calls to end-users. The potential for locating call centres and other large volume generators of terminating traffic in concentrated areas (e.g. business parks) would appear to make entry in response to a price increase

viable in relation to supply to undertakings seeking to provide retail calls to service providers. The economics of supplying these access points, which are likely to handle a lot of traffic, are completely different from those of supplying a nationwide network of low-traffic geographic termination points.

- 3.88 A hypothetical monopolist provider of call termination services for end-users in response to a price increase of up to 10% could enter the market for termination services for calls to service providers (non-geographical termination), but not vice-versa. There are significant long-term barriers to entry to the provision of termination services for calls to end-users. Given the different payment flows which operate in the market, the differences in barriers to entry and economies of scale, and the fact that there is only possibly one-way supply side substitution, we consider that there are separate relevant markets for termination on single networks for calls to end-users and for termination on multiple networks for calls to service providers.

Conclusion

- 3.89 ComReg considers that there are different market structures depending on the type of call being made. This suggests that there are separate relevant markets for call termination for calls to end-users on each fixed network and call termination for calls to service providers. In the market for call termination on all networks for calls to service providers, there are a range of payment principles based on the type of call provided; however, the ability of the service provider to negotiate with the terminating network operator ensures that these call types fall within the same multi-network relevant market.

Does the relevant market for wholesale call termination for calls to service providers on the public telephone network provided at a fixed location include termination of dial-up Internet services?

- 3.90 The EU Commission Recommendation states that:

“...the relevant wholesale call termination market [wholesale call termination as part of Internet service provision] does not [fulfil the criteria to warrant identification in the Recommendation] for the purpose of this Recommendation.”

- 3.91 However, it goes on to note that, this generalisation may not be true for all member states:

“However, in certain Member States it maybe that there is less choice of terminating operators or that one or more operators that have market power on originating access are in a position to more fully exert that market power with respect to call termination. The more limited choice may occur because operators may need to build out networks in order to terminate dial-up calls under un-metered arrangements.”

- 3.92 ComReg believes that Ireland is one of these 'exceptional' Member States. As described above in relation to termination services used to provide calls to service providers, there is still limited alternative network construction, and local loop unbundling is still in its infancy. Further, the market is affected by the fact that the two biggest ISPs (i.e. eircom.net and Ireland On-line) are owned by eircom and ESAT, respectively. This ownership structure means that, contrary to the EC's observation:

“In general, ISPs will have a wide choice with respect to terminating operators and there is evidence of ISPs switching terminating operators,”; the largest ISPs have no choice in relation to the identity of their provider of termination services.

3.93 The EU Commission Recommendation goes on to consider the relationship between termination charges and switching incentives:

“Since any terminating charge is incorporated into the overall amount that is charged by the ISP (and faced by the end-user), and end-users can switch between competing ISPs, ISPs have an incentive to minimise the termination charges that they pay.”

3.94 ComReg notes that this is not the case in Ireland. It would appear to suggest that ISPs pay for termination services. While an ISP may receive payment from its host (or, for that matter, make payments to its host), it does not pay the terminating operator for termination. As described above in relation to other termination services for calls to service providers, the charges that it pays or receives from part of its retail relationship with its host. An ISP has a clear incentive to minimise the charges that it pays, or to maximise those it receives, but these are the commercial terms of its retail relationship with its host, not interconnect payments to other operators.

3.95 In Ireland, wholesale termination of these calls by the terminating operator invariably entails self-supply by the terminating operator’s wholesale arm to its retail arm (which has the retail relationship with the ISP). The settlement fee between the originating and terminating operators is calculated by deducting the originating operator’s call origination costs from the retail price for the call, as with all calls to service providers of any type. In the Irish context, the retention rate of eircom is regulated and it imposes the same rate on all other operators through the “deemed to be” regime .

3.96 On this basis, ComReg has taken the view that termination services for calls to service providers include such services for calls to ISPs, in the Irish context.

Are the relevant markets for termination of calls to end-users and termination of calls to service providers single-network markets?

3.97 Given that market entry is possible in response to a price rise by a hypothetical monopolist supplier, the market structure for termination of calls to service providers is multi-network. As explained above, the provision of non-geographic termination, which does not require a ubiquitous network, means that entry in response to a price rise in the range of 10%, by a hypothetical monopolist, would be possible relatively promptly. The potential for locating call centres and other large volume generators of terminating traffic in concentrated areas (e.g. business parks) would appear to make entry in response to a price increase viable in relation to supply to undertakings seeking to provide retail calls to service providers. Thus, the call termination market for calls to service providers is characterised as a multi-network market.

3.98 However, a fixed service provider wishing to terminate a call on a particular fixed number to an end-user can only terminate it on the network to which that number is assigned (whether or not the call is delivered to the terminating network directly from the originating network or by an intermediate third party transit provider). The call would be unsuccessful if an attempt were made to terminate it on another network.

- 3.99 However, ComReg takes the view that it would be inappropriate to adopt a narrow market definition defining termination on each individual fixed number as a separate and distinct relevant product market. It believes that such an approach is inappropriate because fixed operators providing termination services are unable to discriminate (in relation to price or any other condition of provision) in relation to termination charges imposed for calls made to individual fixed numbers.
- 3.100 ComReg considers that there are relevant product markets for wholesale fixed termination services provided by each individual fixed termination provider for the provision of retail calls to end-users (i.e. each operator's termination service falls within its own distinct market, and is not substitutable for the termination service provided by other operators). Any provider of retail fixed narrowband services cannot acquire termination services on a network other than the network to which the terminating number is assigned. Accordingly, it would be profitable for a hypothetical monopolist supplier of wholesale termination services to increase its termination charges by 5 to 10% (i.e. termination on another network is not a demand-side substitute).
- 3.101 The current rates for termination (described as local or primary termination in a number of the published tariff offerings) do not suggest that eircom's termination rates and the OAOs' termination rates exert competitive pressure on each other. The current rates are set out below.

Table 3.2: Comparison of eircom (to OAO) and OAO (to eircom) termination charge for 3 minute call

	Peak c	Off-peak c	Weekend c
eircom	1.736	0.969	0.868
Budget	3.124	1.562	1.257
C&W	3.124	1.562	1.257
Esat BT	4.838	2.436	2.019
Chorus	3.066	1.619	1.371
NTL	1.929	1.067	0.936
Ocean	4.838	2.436	2.019
Energis	1.929	1.067	0.936
MCI	3.124	1.562	1.257
Colt	1.929	1.067	0.936
Access	2.329	1.465	1.337

- 3.102 The current rates charged by all of NTL, Energis and COLT are between 7 and 11% above eircom's rates. ComReg notes that the NTL and Energis rates dropped in 2002 and 2003, respectively. However, the next cluster of operators' charge geographic termination rates that are approximately 35 to 80% above eircom's rates, and have remained static at that level since the year 2000. Finally, EsatBT's geographic termination charges are between approximately 130 and 180% above eircom's, and have remained static since the year 2000.
- 3.103 ComReg has no evidence of price sensitivity at the retail level that suggests either sensitivity to wholesale termination rates or consideration of the identity of the provider of termination services. Nor does ComReg's consumer survey data indicate that calling parties have any visibility of the identity of the operator providing termination services for a particular call. Further, there is little, if any, publication to end-users of termination charges. As a result, most callers in Ireland are unaware of

the identity of the operator terminating the calls that they make or the charge differentials between terminating operators. The lack of termination pricing awareness limits the competitive significance of the identity of the terminating operator, were callers aware of its identity.

- 3.104 Retail price sensitivity can only impose a competitive constraint on termination rates if the retail party paying for the service can bypass the terminating network (i.e. there are demand-side substitutes at the retail level which constrain (or arguably might constrain) the ability of a fixed network operator to raise its termination charges). ComReg has considered, at some length in its Consultation on Fixed Retail Calls Markets¹⁹, the ability of retail end-users to use substitute services to replace fixed-to-fixed voice telephony calls. In that analysis, ComReg concludes that, while fixed-to-mobile calls are in the same market, mobile-to-mobile calls are not such substitutes. The prices of fixed-to-mobile calls continue to include a significant premium over fixed-to-fixed call charges (reflecting the significantly higher mobile termination charges that continue to be imposed). Pricing data, for example, shows that fixed to mobile calls are significantly more expensive than fixed to fixed calls.
- 3.105 It is clear that a new entrant to the market responding to a hypothetical 5 to 10% increase above the competitive price would need to both operate a local access network that would allow it to terminate calls and win the called customer from the hypothetical monopolist, at the retail level (and to port the called number). The barriers to entry created by the need to build a nationwide network from scratch would be enormous and would effectively prevent any such entry. Without a pre-existing local access network, a potential entrant could not respond to such a price increase.

Conclusion

- 3.106 ComReg's preliminary conclusions consider that the relevant product market for wholesale fixed termination services for calls to end-users is provided by each individual fixed termination provider. This is a single network market structure. The relevant product market for wholesale fixed termination service for calls to service providers is characterised as a multi-network market.

Is self-supply included in the relevant markets for termination of calls to end-users and calls to service providers?

- 3.107 ComReg has considered whether it is appropriate to include self-supplied wholesale termination services in the relevant product markets. Termination services for calls to end-users are usually self-supplied between the wholesale and retail arm of a network operator. It is clear that a number of undertakings self-supply termination functionality and supply wholesale termination services to third parties. The balance of administrative practice of the European Commission has been to exclude self-supply for the purpose of defining markets. However, the Commission derogates from this general principle in circumstances in which it has determined that the characteristics of particular markets are such that self-supply exerts competitive pressure on sales to third parties. It is also important to recall that, in the absence of historical regulatory intervention, there would be few (if any) communications 'access markets'. The sector clearly displays strong differentiating characteristics from other sectors. ComReg takes the preliminary view that taking

¹⁹ ComReg document (04/95).

self-supply of for both calls to end-users and calls to service providers call termination functionality in defining the relevant product market both reflects economic principle and is consistent with emerging Community jurisprudence and Commission practice.

3.108 As for wholesale call origination (see figure 3.1), the hypothetical monopolist (X) supplying wholesale termination services to narrowband call service providers (Y) would be subject to a competitive constraint from integrated fixed network operators (Z) at the retail level. An increase in the price of wholesale termination would, in turn, translate into an increase in the retail price of narrowband telephony services that require the wholesale product, assuming that the increase at the wholesale level is passed through to the retail level. As a result, narrowband call service providers (Y) are likely to lose customers to the integrated monopolist supplier of wholesale termination services (Z). Accordingly, the hypothetical monopolist supplier of wholesale termination services (X) would lose sales, while the self-supplied termination functionality of the integrated firm would increase sales. The competitive constraint on the hypothetical monopoly supplier would come from demand.

Conclusion

3.109 ComReg takes the preliminary view that self-supply for termination for calls to end-users (geographic termination) and calls to service providers (non-geographic termination, in so far as it can be self-supplied between the wholesale and retail arm of an operator) should be included in the relevant product market.

Preliminary Conclusion

3.110 ComReg has drawn the following conclusions about the fixed wholesale markets for call termination:

- there is a separate market for calls to service providers, which has a multi-network market structure;
- there are relevant product markets for termination services for calls to end-users, provided on each individual fixed network; and
- self-supply of termination is included in the relevant product market.

Q. 4. Do you agree with the above preliminary conclusions on market definition for wholesale call termination services? Please expand in your response.

Relevant Geographic Market

3.111 A relevant geographical market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in relation to which the conditions of competition are sufficiently homogeneous and

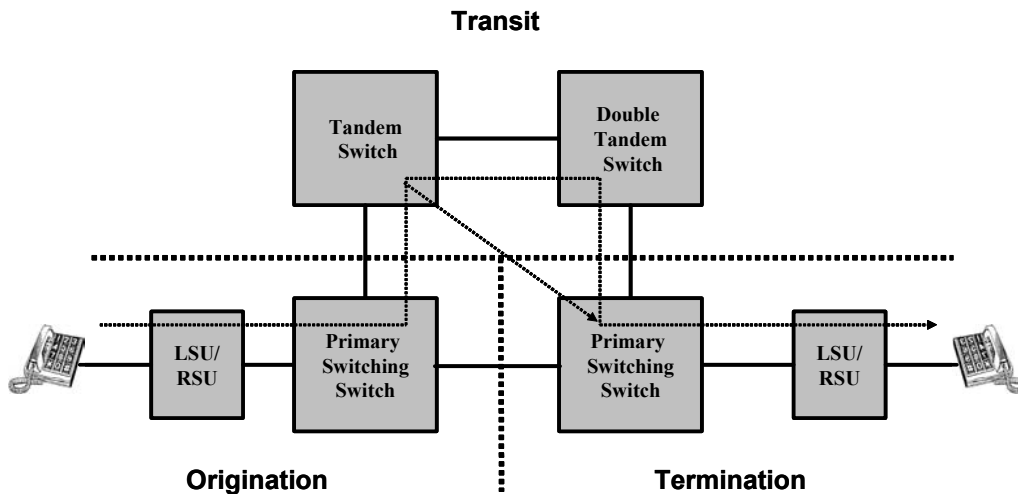
which can be distinguished from neighbouring areas because the conditions of competition are appreciably different to those areas.²⁰

- 3.112 According to the EC Guidelines, in the electronic communications sector, the definition of the geographical scope of the relevant market is generally determined with reference to the area covered by a network, and to the existence of legal and other regulatory instruments.
- 3.113 Termination services are offered to and by all operators in Ireland on terms that do not differentiate by reference to geographic location. Thus, ComReg takes the preliminary view that there is a single national market for supply of wholesale termination services.

Q. 5. Do you agree that the relevant geographic market for wholesale termination services is Ireland? Please expand in your response.

Market Definition: Transit

3.114 As described previously, ComReg proposes to functionally define the boundaries of the relevant markets for 'origination' and 'termination' as congruent with those functions performed by the primary switching exchange directly connected to the calling or called customer, in exactly the same way that eircom currently defines its primary origination and primary termination conveyance. As illustrated below, transit conveyance comprises all other elements of call routing for national calls and involves at least one tandem exchange. Thus, while transit includes the switched tandem conveyance of a call either originating on a fixed network in Ireland or terminating on a fixed network in Ireland, or both, across a third-party's Irish fixed network, transit will also now embrace the tandem and double tandem elements of national calls which eircom currently classify as 'call origination/termination tandem' and call 'origination/termination double tandem'. These calls will also involve either or both call origination and termination.



²⁰ See the Commission Notice on Market Definition, SMP Guidelines, [ComReg's Market Data Information Notice] and United Brands v. Commission, [1978] ECR 207, for additional guidance.

- 3.115 ComReg's analysis to define the relevant product market for call transit on public telephone networks provided at a fixed location entails consideration of the following factors:
- whether transit interconnection services fall into a distinct relevant product market not including alternative facilities;
 - whether self-supply should be included in the relevant product market(s), together with wholesale services provided to third party retail service providers;
 - whether the relevant market is a multi-network market;
 - whether international transit services fall within the same relevant market; and
 - the geographic scope of the relevant market.

Do transit interconnection services fall within a distinct relevant product market to carriage over alternative facilities?

- 3.116 ComReg has considered whether wholesale transit interconnection services and wholesale leased line trunk circuits fall within the same relevant product market. A leased line is a permanently connected communications link between two premises dedicated to the customers' exclusive use. It provides dedicated capacity between those two points, rather than switched capacity to anywhere. Transit interconnect services provide switching, routing and carriage for switched calls originating on the public telephone network.
- 3.117 The pricing of transit services and wholesale leased line trunk circuits, respectively, reflects these functional differences, and is such that it is unlikely that service providers would switch between wholesale transit services and leased lines, or *vice versa*, in response to a 5 to 10% increase in price. Leased lines require a level of financial investment and commitments (and therefore risk), together with substantial time and planning, that ensure that they are not priced in a manner that is within 10% of the competitive price for transit services. Entities considering acquiring leased lines must be certain that they have the minimum volume of traffic on the particular point-to-point route to warrant the risk, investment, time and planning entailed.
- 3.118 EsatBT and MCI WorldCom currently have the largest alternative networks. As yet there is no evidence that the existence of such alternative networks and the provision of alternative services by EsatBT is exerting competitive pressure on the pricing of eircom's transit services. ComReg does not believe that such competition will develop to more than a limited extent within the timeframe of this review.
- 3.119 The Department of Communications, Marine and Natural Resources has invested in carrier-neutral, open-access metropolitan area networks (MANs) for 19 towns throughout the country. The network will consist of metropolitan fibre optic cable and ducts. It is expected that the current MAN projects will be complete by the second half of 2005. However, the MANs aim is to deliver broadband services to high density clusters of users (such as business parks) and to provide basic

infrastructure for deploying other technologies such as DSL²¹. The fibre rings will provide the link to the central facility where copper connections are located (wholesale broadband backhaul); the fibre circuit will then be broken down into smaller segments for termination at the customer premises via copper connections for the provision of DSL services. ComReg, thus, considers that such services are more appropriately dealt with in the market review of leased line markets and in particular that of wholesale trunk segments.

- 3.120 As part of the Governments National Development Plan (2000–2006) support has been given to the ESB Telecom (a subsidiary of the Electricity Supply Board (ESB)) for the construction of a fibre optic network. ESB is known as a “carriers’ carrier”, in that they provide dark fibre services to other operators, who then provide retail services to end-users. However, services have only recently become available on the ESB network and take up is believed to be limited at this stage of development. In addition, for the reasons given above, ComReg considers that such services are more appropriately dealt with in the market review of leased line markets and, in particular, that of Wholesale Trunk Segments.
- 3.121 ComReg has also considered the provision of direct interconnection as a possible substitute for wholesale fixed transit services. This does not involve investment of the scale required to reproduce the local access network, which would be needed to substitute for call origination or termination. Larger fixed network operators such as EsatBT and MCI have implemented a number of direct interconnect routes for their own traffic and one operator is providing third party transit services, albeit on a small scale. Smaller operators face the particular problems associated with small interconnect routes to other smaller operators where the costs of providing circuits are far higher than those of adding incremental capacity to an existing large route to an operator providing transit services. Direct interconnection requires substantial commitment and planning of resources and takes time as well as significant investment. There is no evidence that network operators purchasing transit services could promptly shift to the provision or purchase of direct interconnection in response to price changes.
- 3.122 Given these findings, it is unlikely that all OAOs could promptly shift to direct interconnection for all routes, or that smaller OAOs could promptly introduce many routes and thus demand their self-provided transit services. Thus, ComReg believes that direct interconnection is not in the same market as fixed wholesale switched transit services.
- 3.123 With regards to supply-side substitutability, network operators that replaced the purchase of transit services with direct interconnection have used their productive assets, i.e. the newly-created capacity, to offer transit services to third parties only recently, and then on a very small scale. There is no evidence that such network operators would systematically offer part of their new capacity to other operators demanding transit, but this could change as the market evolves. While ComReg does not anticipate that this will materialise within the life of this review the situation will be actively monitored for the emergence of potential competition.
- 3.124 ComReg has also considered whether switched transit services provided over mobile networks are in the same market as switched transit services over fixed networks. ComReg notes that there has been more build out by mobile operators

²¹ For further details see DCMNR document “The National Development Plan – Fibre Optic MANs – what they are and how they work” on www.dcmnr.gov.ie

who are now generally using direct interconnection between their mobile networks as opposed to transit or conveyance on fixed networks. However, to compete with eircom in the provision of third-party switched transit services would require further significant investment. These costs would only be justified with sufficient levels of traffic, which may not be present on all routes and at each point of interconnection.

- 3.125 On the supply side, it may be possible for a mobile operator to substitute into the fixed market if the hypothetical monopolist increased the price of fixed conveyance and transit. However, this would require the mobile operator to have sufficient spare capacity on its network. In addition, the mobile operator would have to incur significant costs to develop systems for dealing with wholesale customers, including billing and account management. Thus, ComReg does not believe that mobile to mobile fixed transit services are in the same market as fixed wholesale switched transit services.

Conclusion

- 3.126 ComReg's preliminary conclusion is that transit interconnection services fall within a distinct relevant product market to carriage over alternative facilities.

Is self-supply of transit services included in the relevant product market?

- 3.127 ComReg has considered whether it is appropriate to include self-supplied wholesale transit services in the relevant product market. Call transit services can be 'self-provided' by a network operator or provided by such a network operator to third party service providers. As a result, a new entrant service provider could consider constructing alternative exchanges with secondary and/or tertiary functionality, to avoid having to acquire transit services. It is clear that a number of undertakings self-supply transit functionality. In addition, both eircom and EsatBT supply wholesale transit services to third parties. The balance of administrative practice of the European Commission has been to exclude self-supply for the purpose of defining markets. However, the Commission derogates from this general principle in circumstances in which it has determined that the characteristics of particular markets are such that self-supply exerts competitive pressure on sales to third parties. It is also important to recall that, in the absence of historical regulatory intervention, there would be few (if any) communications 'access markets'. The sector clearly displays strong differentiating characteristics from other sectors. ComReg takes the preliminary view that taking self-supply of call transit functionality in defining the relevant product market both reflects economic principle and is consistent with emerging Community jurisprudence and Commission practice. ComReg, for reasons set out above, does not consider that self-supply of direct interconnection or mobile to mobile transit falls within this market.
- 3.128 As for wholesale call origination (see figure 3.1), the hypothetical monopolist (X) supplying wholesale call transit services to indirect access providers (Y) would, in theory, be subject to a competitive constraint from integrated fixed network operators (Z) at the retail level. An increase in the price of wholesale call transit would, in turn, translate into an increase in the retail price of fixed voice telephony services that incorporate the wholesale product, assuming that the increase at the wholesale level is passed through to the retail level. As a result, narrowband call service providers (Y) are likely to lose customers to the integrated monopolist supplier of wholesale call transit services (Z). Accordingly, the hypothetical monopolist supplier of wholesale call transit services (X) would lose sales, while the

self-supplied call transit functionality of the integrated firm would increase sales. The competitive constraint on the hypothetical monopoly supplier would come from demand.

- 3.129 However, ComReg is seeking views as to whether the indirect pricing constraint imposed by the retail market on wholesale transit services is sufficiently strong to include self supply of transit, given that the price sensitivity that transit exhibits, would require a relatively large loss of transit volume to render a 10% price increase unprofitable. Further, transit costs make up a relatively small proportion of the total costs of retail calls, and the retail prices of such calls.

Q. 6. Do you agree that the wholesale transit market should be defined to include self-supply? Please expand in your response.

Is the relevant market a multi-network market?

- 3.130 A third party provider of retail voice call telephony services to end-users does not require access to every network in Ireland that is capable of providing transit services. Such a third party provider can provide its retail services if it has access to transit services that allow it to ensure connectivity between the switching functionality that forms the boundary of the wholesale origination service that is necessary to originate the retail calls and the wholesale termination service that is necessary to supply the termination element necessary for end-to-end connectivity.
- 3.131 While eircom is the main provider of third party transit services in Ireland, EsatBT has also been providing transit services to both fixed and mobile operators since early 2002.
- 3.132 ComReg takes the view that the relevant market for wholesale transit services is a multi network market.

Preliminary Conclusions

- 3.133 ComReg takes the view that there is a single relevant market for fixed wholesale transit services that encompasses all fixed networks in Ireland.

Q. 7. Do you agree that there is a single relevant market for fixed wholesale transit services that encompasses all fixed networks in Ireland? Please expand in your response.

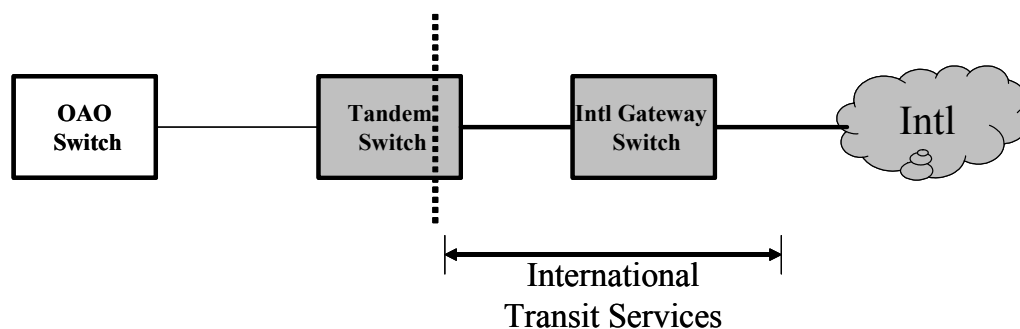
International transit services

- 3.134 ComReg has considered the extent to which international transit services represent a separate and distinct service that falls outside the relevant market for transit services in Ireland.

3.135 Functionally, international transit services entail the routing of an Irish originating or terminating switched call to or from an international termination or origination point. More particularly, the national component of such transit services entails switching and related transmission to an international gateway.

Demand-side substitution

3.136 International transit services are acquired by providers of international retail calls services (whether in Ireland or elsewhere). They might be acquired together with national transit and origination or termination services. However, international transit services are not functional substitutes for any of these other wholesale interconnection products. For example, a retail service provider seeking to provide a retail call between Dublin and New York does not require transit between Dublin and Cork.



Supply-side substitution

3.137 ComReg has examined whether a provider of national transit services would respond to a small but significant non-transitory price increase by a hypothetical monopolist supplier of international transit services including switching and conveyance to an international gateway. ComReg takes the view that it is unlikely that such a switch would occur in a manner that would be sufficiently prompt or cost effective to constrain the behaviour of the hypothetical monopolist. In particular, it would be necessary for the potential entrant to make the investments required in an international gateway and transmission facilities as a precondition to market entry.

Conclusion

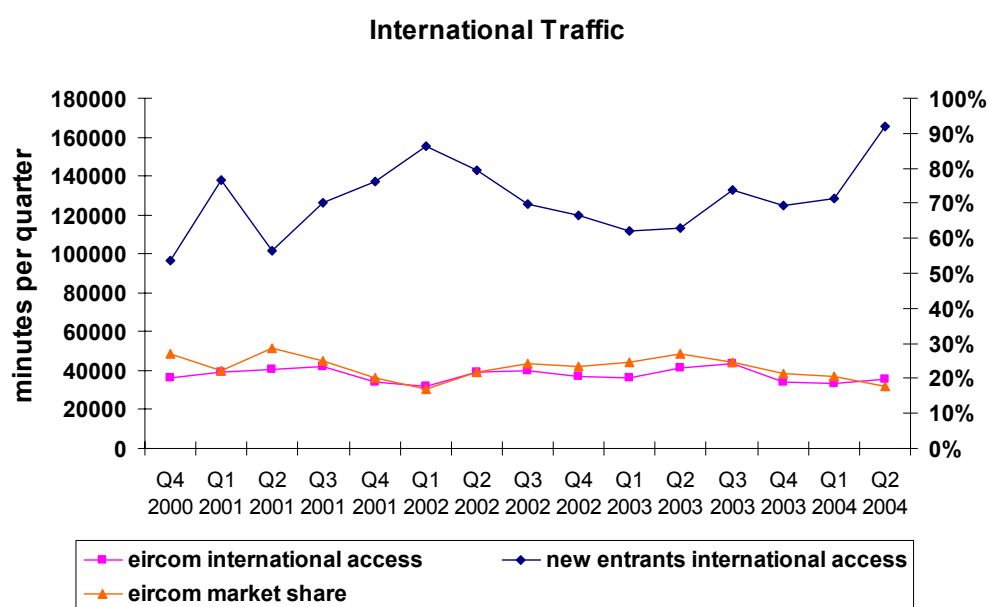
3.138 ComReg has reached the preliminary conclusion that international transit services do not fall within the relevant wholesale transit services market.

3.139 ComReg is required, when identifying relevant markets for the purposes of the new regulatory framework to conduct an overall assessment of the effectiveness of competition law alone to preclude market failure. The European Commission has specified the following specific cumulative criteria as being appropriate to identify relevant markets:

- Whether the market is subject to high and non-transitory barriers to entry;
- Whether dynamic competition is occurring behind any barriers to entry; and

- The relative efficiency of competition law to reduce or remove such barriers or to restore effective competition²².

3.140 In relation to international transit services, ComReg believes that, while there are barriers to entry to the provision of international transit services, these barriers are not insurmountable. The market evidence suggests that there are a number of alternative suppliers in addition to eircom. EsatBT, MCI WorldCom, Energis, Colt, and Cable & Wireless are also providing third party international transit services. ComReg and its predecessor, ODTR, have noted the evolution of this competition in successive consultations (ODTR 01/24, 99/78) and considers that the new regulatory framework provides the opportunity to deregulate this market. As can be seen in the graph below eircom’s share of this service has either remained stable or has fallen over the last number of years with the share of new entrants at over 90% in the latest quarter.



3.141 As noted above, it appears that there is in fact dynamic competition in the supply of international transit services. eircom’s published prices have operated as a price ceiling, below which third parties supply and acquire international transit services.

3.142 In the circumstances, it would appear that competition law provides an appropriate mechanism to ensure that pricing and the other terms and conditions of supply of international transit services do not become abusive. The European Commission’s 2003 decisions against Deutsche Telekom and France Telecom (Wanadoo), relating to price squeeze and predatory retail pricing, respectively, would appear to confirm that ability of competition law to address such conduct.²³

²² Explanatory Memorandum to Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services, pages 9 to 12.

²³ See Commission v. Deutsche Telekom, [2003] (COMP/38.233) and Commission v. Wanadoo, [2003] (COMP/37.451)

Q. 8. Do you agree with ComReg's preliminary conclusions concerning international transit services? Please expand in your response.

Preliminary Conclusions

3.143 ComReg concludes that there is a relevant market for wholesale call transit services on the public telephone network provided at a fixed location. The market is defined such that:

- transit interconnection services are a distinct relevant product market to alternative facilities for transit services;
- self-supply should be included in the relevant product market(s), together with wholesale services provided to third party retail service providers;
- the relevant market is a multi-network market; and
- international transit services do not fall within the same relevant market as national transit services.

Q. 9. Do you agree with ComReg's preliminary conclusions concerning the market definition for wholesale call transit services? Please expand in your response.

The relevant geographic market

3.144 A relevant geographical market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in relation to which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different to those areas²⁴.

3.145 According to the EC Guidelines, in the electronic communications sector, the definition of the geographical scope of the relevant market is generally determined with reference to the area covered by a network, and to the existence of legal and other regulatory instruments.

3.146 Transit services are offered to and by all operators in Ireland on terms that do not differentiate by reference to geographic location. ComReg, thus, takes the preliminary view that there is a single national market for supply of wholesale transit services.

²⁴ See the Commission Notice on Market Definition, SMP Guidelines, [ComReg's Market Data Information Notice] and United Brands v. Commission, [1978] ECR 207, for additional guidance.

Q. 10. Do you agree that the relevant geographic market for wholesale transit services is Ireland? Please expand in your response.

Summary of preliminary conclusions

3.147 ComReg has carried out the above market definition exercise in accordance with the principles of competition law and has taken the utmost account of the *Relevant Markets Recommendation*, as well as the *SMP Guidelines*.

3.148 The wholesale fixed narrowband interconnect markets which ComReg proposes to define are as follows:

- National market for wholesale call origination services on the public telephone network provided at a fixed location;
- National markets for wholesale call termination services used to provide retail calls to end-users on each public telephone network, provided at a fixed location;
- National market for wholesale call termination services used to provide retail calls to service providers on public telephone networks, provided at a fixed location; and
- National market for wholesale call transit services on the public telephone network provided at a fixed location.

Competition law provides an appropriate mechanism to ensure that pricing and the other terms and conditions of supply of international transit services do not become abusive.

Q. 11. Do you agree with the above preliminary conclusions regarding the market definition exercise? Please provide a reasoned response.

4 Relevant Market Analysis

Introduction

Background

- 4.1 Having identified the relevant interconnection markets, ComReg is required to conduct an analysis of whether these markets are effectively competitive by reference to whether any given undertaking or undertakings is/are deemed to hold SMP in these markets. Recital 27 of the Framework Directive states that a relevant market will not be effectively competitive “where there are one or more undertakings with significant market power”. Regulation 25(1) of the Framework Regulations states that:

“A reference in these Regulations ... to an undertaking with significant market power is to an ... undertaking (whether individually or jointly with others) enjoys a position which is equivalent to dominance of that market, that is to say a position of economic strength affording it the power to behave to an appreciable extent, independently of competitors, customers, and, ultimately, consumers”.

- 4.2 Accordingly, an undertaking may be deemed to have SMP either individually or jointly with other undertakings in a relevant market. In addition, where an undertaking has SMP on a relevant market, it may also be deemed to have SMP on a closely related market, where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking.²⁵
- 4.3 ComReg is obliged under the Framework Regulations to assess SMP in accordance with European Community law and to take the “utmost account” of *the Guidelines*²⁶.

Market structure

- 4.4 Wholesale call origination, transit and termination services are the wholesale inputs used to provide retail calls to end-users and service providers in Ireland. Wholesale call origination services are either self-supplied by OAOs or purchased directly from eircom. eircom is the only undertaking that provides call origination services to third parties in Ireland, through Indirect Access services such as Carrier Pre Select, Carrier-Select, and Carrier Access.
- 4.5 EsatBT is the only OAO currently offering wholesale transit services to third-parties, although the scale of this service is limited. Otherwise, transit services are either to some extent self-supplied or purchased from eircom in the form of switched minutes. There are a number of undertakings providing wholesale termination services on their own networks for retail calls to end-users and service providers. Many undertakings terminate calls for directly connected end-users, while terminating operators also compete with each other for the provision of terminating services for calls to service providers.

eircom

- 4.6 eircom, as the only undertaking with a ubiquitous fixed switched network in Ireland, conveys the majority of switched calls across its network either for third-parties or as self-provided traffic. All OAOs must interconnect with the eircom network at

²⁵ Framework Regulations, Regulation 25(3).

²⁶ Regulation 25(2).

various levels in order to provide retail call services to end-users. The terms on which eircom offers these wholesale services are set out in its Reference Interconnect Offer (RIO).

EsatBT

- 4.7 The second major competitor in the provision of retail narrowband service in Ireland is EsatBT which was bought by British Telecom during 2000. EsatBT has a large number of indirect customers as well as a small number of directly connected customers. In addition to the provision of calls to end-users, EsatBT provides a wide range of calls to service providers.
- 4.8 EsatBT competes to provide residential and business calls and hosts the second largest Internet service provider in the country. EsatBT has four switched tandem exchanges used to provide these retail services. In addition, EsatBT provides third party wholesale transit services and termination services for calls to service providers.

MCI WorldCom

- 4.9 MCI, like EsatBT, operates one of the larger alternative fixed switched networks (with 10 tandem exchanges), but does not provide third-party wholesale call origination or transit services. MCI does provide termination services to other operators. MCI provides retail calls using indirect access to eircom's network and also acts as a wholesale purchaser by providing these same services to resellers competing at the retail level.

Smart Telecom

- 4.10 Smart Telecom provides residential calls and also has an extensive payphone business. Earlier this year, it was amongst the first of Eircom's rivals to offer single billing to residential customers. However, the extent of Smart Telecom's narrowband switched infrastructure is limited. With the exception of termination of calls on the Smart network, there is no third-party provision of interconnection services.

Other Authorised Operators

- 4.11 There are a number of other fixed operators involved in the retail provision of calls to end-users, such as Energis, Colt, Budget, Access Telecom. The switched narrowband infrastructure controlled by these undertakings is limited with no third-party provision of services, other than for termination of calls.

ntl & Chorus

- 4.12 Their main business is the provision of Cable TV services, with a small number of directly connected and CPS customers.

Resellers

- 4.13 A number of operators do not have infrastructure themselves, but purchase minutes at the wholesale level to provide call services at the retail level.

ESB

- 4.14 ESB was awarded funding under the National Development Plan 2000-2006, to build a national backbone. Fibre has been deployed around the existing ESB electricity network. ESB manages the network as a 'carriers' carrier' meaning it will lease capacity to other operators rather than engaging in the retail market itself.

- 4.15 The ESB network comprises a Southern ring and a Northern ring. The Southern ring runs from Dublin to Shannon, Limerick, Cork, Waterford, Wexford, Arklow and back to Dublin.

Government Funded Metropolitan Area Networks

- 4.16 As part of a national policy to facilitate broadband access, the Department of Communications, Marine and Natural Resources will invest €65 million in total in Phase I to fund the construction of 50,000 km of carrier-neutral, open-access metropolitan area networks for 19 towns throughout the country. This is equivalent to 90% of total funding. The network will consist of metropolitan fibre optic cable and ducts. The original network will be aimed at business users, schools, local government offices, hospitals and other public institutions. While framework agreements have already been signed with primary suppliers of the network for Phase I, more opportunities will be available for Phases II and III over the next few years. However, the MANs aim is to deliver broadband services to high density clusters of users (such as business parks) and to provide basic infrastructure for deploying other technologies such as DSL. Thus, the MANs are not used to provide retail fixed narrowband services and hence do not support the associated wholesale services (call origination, call termination and transit services).

Market Analysis: Call Origination

- 4.17 The SMP guidelines state that the existence of a dominant position cannot be established on the sole basis of large market shares and that NRAs should undertake a thorough and overall analysis of economic characteristics of the relevant market before coming to the conclusion as to the existence of significant market power.²⁷
- 4.18 However, the SMP guidelines state that according to established case law, very large market shares – in excess of 50% - are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position.²⁸
- 4.19 Despite its relative importance, market share must be considered alongside a range of other factors, including:
- the extent to which the market dynamics indicate that any entity (or entities) has power over price;
 - historical conduct suggestive of the existence of market power;
 - countervailing buyer power;
 - the existence of entry barriers and barriers to expansion (beyond more strategic advantages which amount to a 'first mover' advantage), including economies of scale and scope;
 - ability to leverage key aspects of overall size or economic strength in the relevant market; and
 - extent of vertical integration.
- 4.20 The following assessment considers the most appropriate of these factors.

²⁷ SMP Guidelines, Paragraph 78

²⁸ SMP Guidelines, Para 75

Market share

4.21 ComReg notes that eircom has a market share of over 98% in the total retail access market.²⁹ ComReg's data further indicates that eircom provide approximately 83% of all wholesale call origination services.

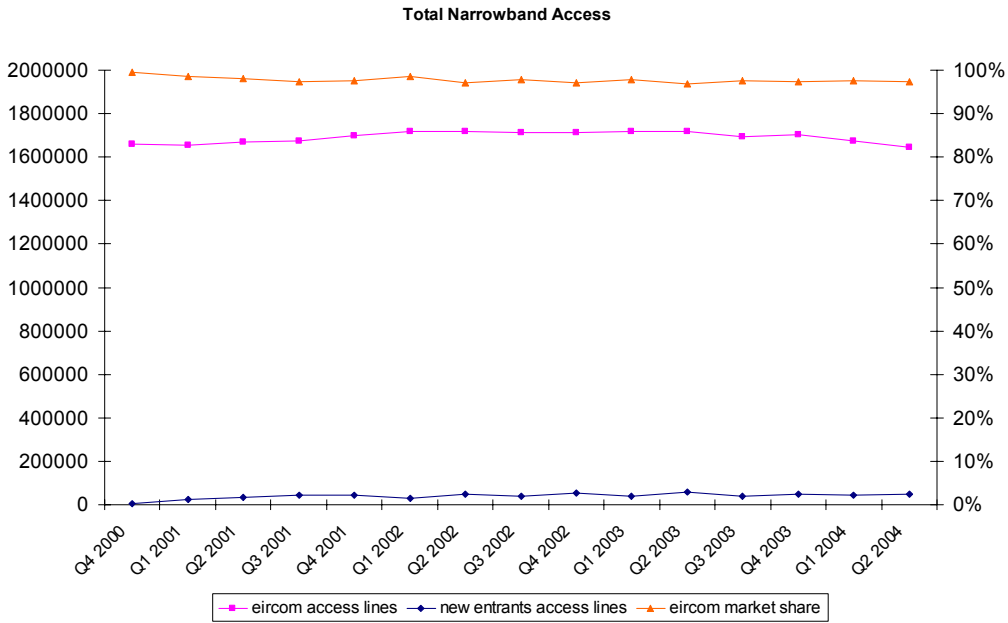


Figure 4.1: Share of total narrowband access market

4.22 The European Commission has indicated that a dynamic, rather than a static approach is required when carrying out a prospective, or forward-looking, market analysis.³⁰ ComReg's data indicates that, including self supply, eircom's market share in the wholesale origination market has remained stable over the last three years, ranging between 80 and 85%.

²⁹ Retail Fixed Calls Market Review – ComReg Doc. 04/95

³⁰ See *Michelin v. Commission* [1983] ECR 3461

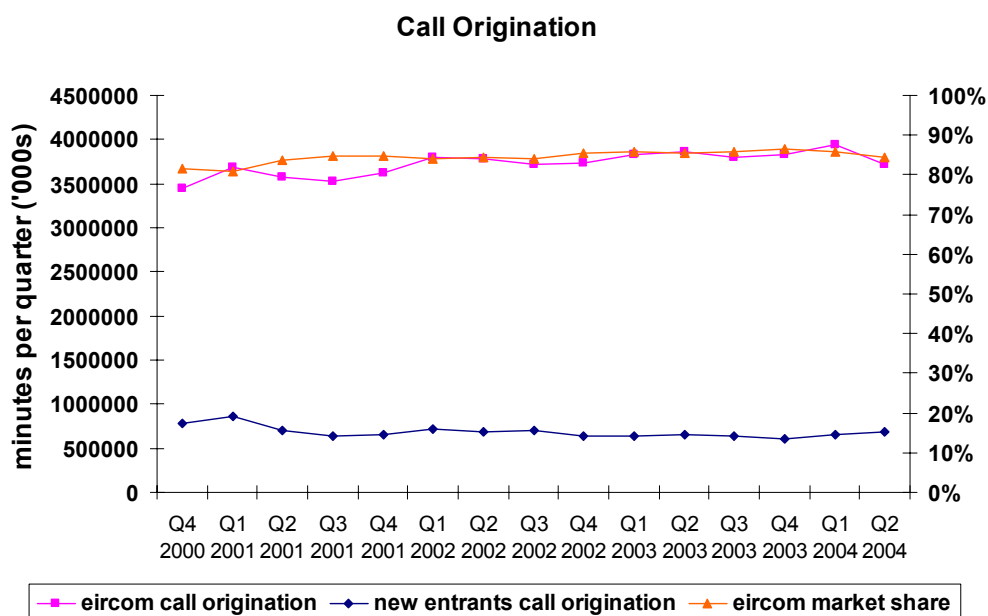


Figure 4.2: Market shares by volume for the Wholesale Call Origination Market

4.23 Taking into account eircom's control of approximately 83% of the wholesale call origination market, the stability of its market share and the absolute level of such shares, ComReg believes that eircom's market share will not change significantly within the timeframe of this review.

Pricing Behaviour

4.24 In some instances, pricing behaviour will be indicative of the exercise of market power. However, eircom's current prices are regulated. The costing model used allows for the recovery of cost of capital in addition to the costs of an efficient operator. In essence, it allows for a margin above the cost of provision, reflecting the cost of capital.

4.25 eircom's origination charges, both those charged to CPSO operators (CPSO) and those charged to terminating operators, are regulated under the cost model described above. eircom's charges reflect its costs of conveyance (i.e. the transmission and switching required for call origination), billing, bad debt management, credit control and cash collection.

4.26 Where eircom provides call origination services to a CPSO's customer, the CPSO pays eircom for that service. The CPSO raises the retail charge (if any) on the calling party (in the case of a call to an end-user) and then either, pays for termination and transit; or in the case of calls to service providers retains a portion of the retail charge to cover its costs of billing, bad debt management, credit control, cash collection and conveyance (i.e. routing and transmission) and passes the balance to the next operator along the route for termination or transit as appropriate. In this latter case the CPSO's costs are currently 'deemed to be' equal to eircom's costs of providing the equivalent services.

4.27 ComReg takes the view that, in the absence of regulation, an originating operator with a market share of approximately 83% would have power over price in negotiating with CPS and terminating operators. This is discussed in more detail, further on in Section 4.

Conduct indicative of market power

4.28 ComReg has been required to intervene in relation to a number of complaints relating to eircom's conduct relating in the provision of wholesale fixed origination services. Such complaints have related to the following types of conduct:

- Misuse of information provided by competitors for the purposes of interconnection (both information about such competitors and their customers);
- Discriminatory technical conditions, including mandating inefficient points of interconnection;
- Discriminatory access to technical information regarding new services and points of interconnection, providing eircom's retail operations with an anti-competitive first mover advantage;
- Discriminatory quality of service;
- Unjustifiable delays in service provision; and
- Pricing of origination services (capacity and calls).

ComReg's considers that eircom's conduct is, and has been indicative of market power in the market for wholesale call origination.

Countervailing bargaining power

4.29 In some circumstances, customers might be in a position to exert countervailing buyer power when purchasing from an entity that would otherwise be expected to be in a position to exercise market power. However, countervailing buyer power can only impose a constraint where customers have the ability (within a reasonable timeframe) to resort to credible alternatives (e.g. not to purchase or to switch supplier) in response to a price increase or threatened price increase.

4.30 ComReg has seen no evidence that supports the existence of countervailing bargaining power in the market for call origination. On the contrary, it would appear that the purchasers of such wholesale services have no alternative credible suppliers. CPS and terminating operators must, therefore, reach agreement with eircom to be able to provide service.

4.31 As noted in Section 3, the level of infrastructure investment required for new entrants to provide wholesale termination services for calls to service providers entails a substantially smaller commitment than the construction of the ubiquitous local access network required for termination services for calls to end-users. ComReg does not believe that this alters the negotiating incentives and dynamics between the ubiquitous originating operator and terminating operators. In particular, because the ubiquitous originating operator is the price leader, in relation to the retail charges associated with each number code (and, therefore, the retail prices from which the service provider hosted by the terminating operator selects its retail price) and is able to offer a credible competing termination network to any service provider that is dissatisfied with the portion of the total revenue that it is offered, it is able to control the 'total revenue' to be distributed between the service providers and to some extent the sum offered by the terminating operator to the service provider.

- 4.32 The terminating operator can only respond to an increase in the origination charge (and, therefore, a decrease in the portion of the 'total' revenues available to it and the service provider) by providing its termination services for a lower charge (since the service provider will respond to any attempt to reduce its portion of the total by churning to another host). The terminating operator cannot refuse to supply the originating operator, given the massive market share disparities, since any interference in end-to-end connectivity is also likely to lead to churn by the service provider to another host (quite possibly the originating operator).
- 4.33 As such, the dominant originating operator exerts power over the retail charge setting process and can leverage this, its power flowing from its share of the origination market and the fact that it offers a credible alternative source of termination to negate any power over price that might ordinarily be expected to rest with smaller terminating operators.³¹

Barriers to entry and potential competition

- 4.34 The threat of market entry is one of the main potential competitive constraints on incumbent firms, and may prevent a dominant incumbent from raising prices above competitive levels. The threat of entry will be reduced by the existence of barriers to entry.
- 4.35 ComReg is unaware of any legal or regulatory Communications barriers to entry, although it could be argued that an awkward planning application system and high local authority charges act as barriers to entry. However, ComReg believes that economies of scale and scope present very real barriers to entry.
- 4.36 Sunk costs are costs which are required to enter a market, but which cannot be recovered on exit. A new entrant must consider whether there is potential to cover sunk costs as well as costs of service provision, whereas an incumbent has already covered sunk costs. Sunk costs inevitably create barriers which can deter market entry. It should be recalled that wholesale fixed origination services can only be provided by the entity that controls the relevant end-user network termination point.
- 4.37 In relation to fixed wholesale origination services, the density and ubiquity of eircom's network results in eircom typically incurring lower transmission costs than competing network operators. The effect of such economies of scale on new entrant operators seeking to use owned facilities to offer retail services (and, therefore, self-providing wholesale origination services), is that such an operator is likely to be unable to match the fixed incumbent's prices, unless the new entrant prices at a level that does not allow it to cover its costs.
- 4.38 Economies of scale are likely to be achieved not only in the supply of access and wholesale origination (since it occurs over the local loop), but in the supply of associated support services. This means that the incumbent also achieves lower costs in network support, such as maintenance charges, etc.
- 4.39 eircom also has a cost advantage resulting from the economies of scope that it enjoys in relation to the common costs that it incurs in supplying a range of different services using common underlying facilities and wholesale services. Economies of scope become increasingly relevant as the range of services sharing costs increases, so that an operator providing service across the broadest possible range of

³¹ ComReg notes that eircom also has a market share of over 90% of the relevant market for wholesale termination services of calls to service providers.

telecommunications services is both able to reduce the portion of common costs to be recovered from any particular service and to improve its ability to recover all of its common costs without having to significantly increase retail prices.

- 4.40 Taking these barriers to entry into account, ComReg does not consider it likely that a new entrant would build a new network replicating all or part of eircom's local access network, or that sufficient investment will be made in existing infrastructure to upgrade it to the extent that it can provide an alternative local access network during the timeframe of this review.

Ability to leverage and vertical integration

- 4.41 As described above, eircom is the dominant provider of the local access network in Ireland. It is the only entity with the ubiquitous local access facilities that are the necessary precondition, to the provision of wholesale fixed origination services. eircom is, thus capable of leveraging its market power for the provision of wholesale fixed origination services into other adjacent markets.
- 4.42 In addition, ComReg's observations of behaviour in the markets for the provision of wholesale fixed origination and termination services suggest that eircom is able to leverage its dominance in the origination market into the relevant market for wholesale termination on eircom's network.

Preliminary conclusions

- 4.43 eircom should be designated as having SMP in the wholesale market for call origination on the fixed public telephone network. ComReg does not think it is likely that any current service provider can or will impose a competitive constraint on eircom, and does not believe that any entity will develop the ability to do so within the lifetime of this review.

Q. 12. Do you agree with the preliminary conclusions regarding the market analysis of the wholesale call origination market? Please provide a reasoned response.

Market Analysis: Call Termination on Individual Fixed Networks for Retail Calls to End-Users and on All Fixed Networks for Retail Calls to Service Providers

- 4.44 As noted above, there are a range of factors that ComReg has taken into account in assessing the existence of significant market power. It notes that the relative importance of particular factors varies from market to market. The SMP guidelines state that the existence of a dominant position cannot be established on the sole basis of large market shares and those NRAs should undertake a thorough and overall analysis of economic characteristics of the relevant market before coming to the conclusion as to the existence of significant market power³². As such, ComReg has examined the following factors:

³² SMP Guidelines, Paragraph 78

- market share;
- the extent to which the market dynamics indicate that any entity (or entities) has power over price;
- historical conduct suggestive of the existence of market power;
- countervailing buyer power;
- the existence of entry barriers and barriers to expansion (beyond more strategic advantages which amount to a 'first mover' advantage), including economies of scale and scope;
- ability to leverage key aspects of overall size or economic strength in the relevant market; and
- extent of vertical integration.

Market shares

- 4.45 ComReg has identified single network markets for the provision of wholesale termination services for retail calls to end-users. Given this, and that it is not possible for any entity other than the entity controlling the network terminating point with which the geographic number is associated to terminate calls to that number, each fixed network operator has a 100% share of wholesale termination on its network.
- 4.46 ComReg has identified a multi-network market for the provision of wholesale termination services for calls to service providers (including Internet Service Providers). ComReg's data, as illustrated in the graph below, is slightly irregular in the latest quarter due to a reclassification of traffic between categories by the incumbent³³, but indicates that eircom's market share (including self-supply) has climbed from 70% to almost 80% in recent quarters. EsatBT acquired market share relatively rapidly after the introduction of Non-Geographic Number Portability in November 1999. However, this has recently been more than offset by eircom's success with capped flat rate Internet access services.
- 4.47 As noted above, the SMP guidelines state that, according to established case law, very large market shares – in excess of 50% - are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position³⁴.

³³ ADSL and bitstream turnover and volumes were reclassified from Data communications to Access in the financial year ended 31 March 2004

³⁴ SMP Guidelines, Para 75

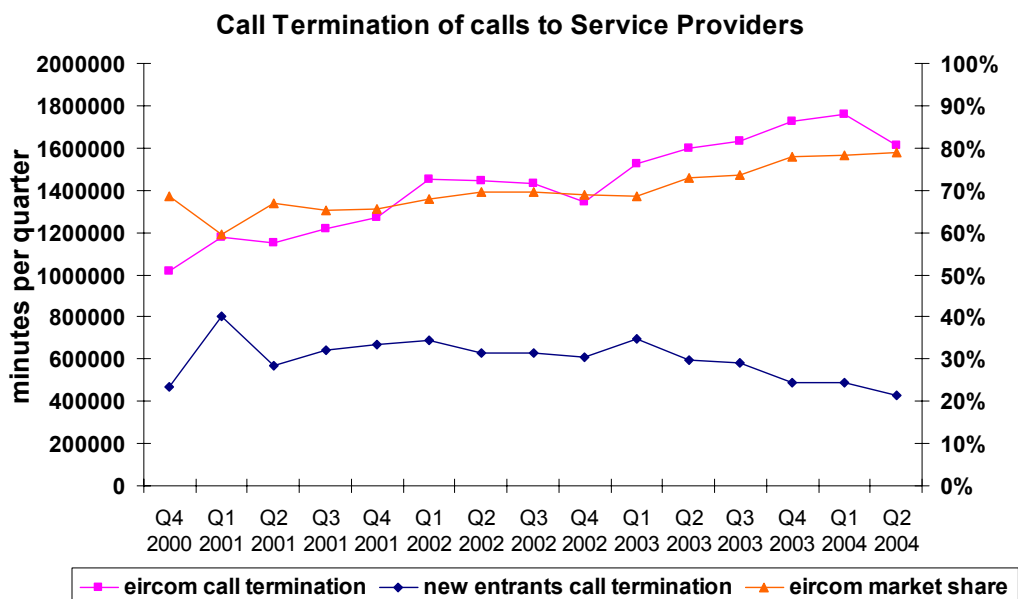


Figure 4.3: market share by volume in the market for termination of calls to service providers

4.48 As the graph makes clear, eircom's market share is currently around 80%. Further, it has been over 65% since the 4th quarter of the year 2000, and has not dropped below 70% since the 1st quarter of 2003. It has not only remained remarkably stable, it has actually grown consistently over the last four years. Market shares of this level and this stability indicate dominance.

Pricing and profitability

4.49 The termination pricing data set out in Table 3.2 in Section 3, shows that OAO geographic termination rates are higher than eircom's. These rates have remained relatively unchanged since 2000, with the exception of a reduction in the rates offered to eircom by two operators, as the following chart indicates.

Table 4.1: Termination charge to eircom for 3 minute call³⁵

	Peak c	Off-peak c	Weekend c	Effective From	Effective To
NTL	3.066	1.62	1.371	01/07/00	31/08/03
NTL	1.929	1.067	0.936	01/09/03	Current
Energis	3.12	1.56	1.257	01/07/00	31/03/02
Energis	1.929	1.067	0.936	01/04/02	Current

Source: eircom Switched Transit Routing and Price List – Issue 28

4.50 The graph below illustrates the absolute and relative wholesale termination services pricing for a three minute call at peak rate to a geographic number for eircom and the

³⁵ These new termination rates have a 'rate per call' and 'rate per minute' element.

OAOs. It also confirms the relative stability of these prices, and shows the number of price changes that have occurred over the last four years. In essence, the OAO charges are higher than eircom's. The current rate charged by all of NTL, Energis and COLT is within 10% of eircom's rates. ComReg notes that the NTL and Energis rates dropped from a level that was approximately 80% above eircom's rate in single reductions in 2002 and 2003, respectively. However, the next cluster of operators' charge geographic termination rates that are approximately 60 to 80% above eircom's rates, and have remained static at that level since the year 2000. Finally, EsatBT's geographic termination charge is approximately 180% above eircom's, and has remained static at that level since the year 2000. It would, thus appear that the OAOs have termination rates substantially higher than those of an operator of minimum efficient scale (assuming that eircom's rates are cost-oriented at such a rate).

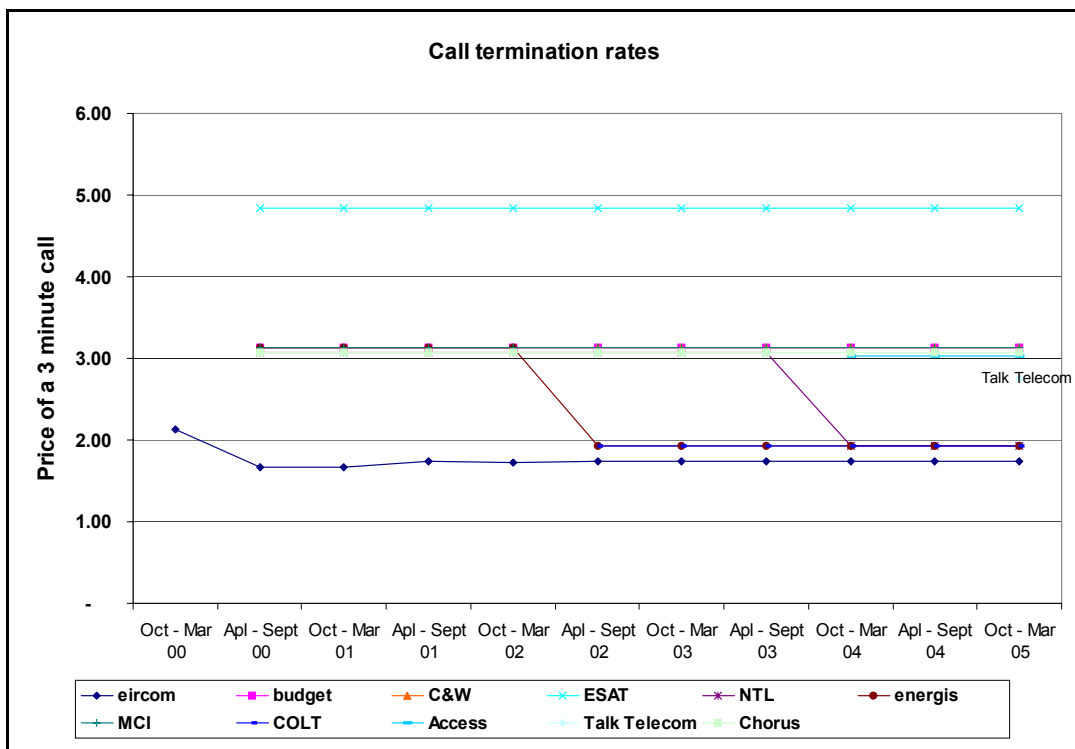


Figure 4.4: Call termination rates for a 3 minute call at peak rate to a geographic number

- 4.51 Wholesale termination charges relating to calls to service providers are entirely a matter of self-supply. The originating operator retains a portion of the retail charge collected, and pays the balance of the retail revenue, if any, to the terminating operator. After deducting their own costs, the terminating operator pays the residual balance to the service provider.
- 4.52 If the retail revenues are insufficient to cover its costs, as, for example, for freephone calls, the terminating operator recovers these costs and their own from the service provider. In all calls to service providers the originating operator recovers its costs – the retention - and the terminating operator makes do with the balance of the retail

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revenues, with a resulting positive or negative settlement to the service provider. eircom's retention is regulated and eircom requires other operators to reciprocate at the same rate as set out in its RIO, and the accompanying price list which contains statements such as the one reproduced below.

* Service Schedule 205 quotes the eircom regulated retentions for Premium Rate calls. The settlement is derived from these regulated retentions on the principle of retail minus retention. The reciprocal settlement for OAO access to eircom Premium Rate Service can be viewed in Service Schedule 105. The Principle of Reciprocity applies.

Table 4.2 Eircom RIO matched services

Eircom services ³⁶		Operator services	
Service schedule number	Service title	Service schedule number	Service title
105	Access to eircom Premium Rate Service	205	Access to Operator Premium Rate Service
106	Access to eircom Freefone Service	206	Access to Operator Freefone Service
107	Access to eircom LoCall Service	207	Access to Operator Shared Cost Timed Service
108	Access to eircom Callsave Service	208	Access to Operator Fixed Timed Service
109	Access to eircom Universal Number Service	209	Access to Operator Universal Number Service
110	Access to eircom Personal Numbering Service	210	Access to Operator Personal Numbering Service
121	Access to eircom Internet Service - 1891	221	Operator Internet Access 1891 Internet Service
122	Access to eircom Internet Service - 1892	222	Operator Internet Access 1892 Internet Service

4.53 eircom describes the regime represented in Table 4.2 as the 'deemed to be' settlement regime where other operator's costs are deemed to be equivalent to those of eircom for the provision of an equivalent service.

Conduct indicative of market power

4.54 ComReg has been required to intervene in relation to a number of complaints relating to eircom's conduct relating to the provision of wholesale fixed termination services. Such complaints have related to the following types of conduct:

³⁶ Eircom Reference Interconnect Offer, issue 1.30, 01/09/04

- Misuse of information provided by competitors for the purposes of interconnection (both information about such competitors and their customers);
 - Discriminatory technical conditions, including mandating inefficient points of interconnection;
 - Discriminatory access to technical information regarding new services and points of interconnection, providing eircom's retail operations with an anti-competitive first mover advantage;
 - Discriminatory quality of service;
 - Unjustifiable delays in service provision; and
 - Pricing of termination services (capacity and calls).
- 4.55 ComReg considers that eircom's conduct is, and has been, indicative of market power in the wholesale market for termination of calls to end-users.
- 4.56 ComReg has no evidence of such conduct by any of the OAOs. ComReg notes that, given the asymmetric traffic volumes between the OAOs on the one hand and eircom on the other, it does not expect to see behaviour from an OAO potentially amounting to a constructive refusal to supply.

Countervailing bargaining power

- 4.57 ComReg believes that eircom currently originates approximately 83% of all minutes terminating on any network in Ireland. All providers of termination services negotiate with eircom, as the provider of 83% of origination services, or in a small number of cases, CPSOs (where the CPSOs are effectively "reselling" origination services) or OAOs.
- 4.58 If an operator engages in practices that are potentially exploitative, customers might be able to exert countervailing buyer power against such practices. Where buyers are large and powerful, they might be in a position to effectively respond to any attempt to increase prices by sellers. This section aims to evaluate the existence of countervailing buyer power in the fixed termination markets, and the circumstances in which wholesale or retail customers can influence the behaviour of the supplier of termination services in each of those markets.
- 4.59 Countervailing buyer power exists where large customers have the ability (within a reasonable timeframe) to resort to credible alternatives (e.g. not to purchase or to switch supplier) in response to a price increase or threatened price increase or other deterioration in the conditions of delivery. ComReg notes that there is precedent that makes it clear that countervailing buyer power can off-set high market shares, in particular circumstances, driven largely by an 'exceptional' market structure. For example, in *Eons/Store*,³⁷ the Commission found that, despite the 50-70% market share that the combined parties would possess, the relationship between the suppliers and customers was mutually dependent and the buyers exercised market power *vis-à-vis* the merging parties. In particular, the merger under review created a 'rather exceptional' market structure in which one large and two smaller suppliers faced one large and two smaller buyers³⁸.

³⁷ Case No IV/M.1225.

³⁸ *Ibid.*, at para. 97.

- 4.60 The centrality of "market structure" is highlighted by the Commission's conclusions in *Danish Crown/Vestjyske Slagterier*.³⁹ The Commission found that two buyers accounting for over 50% of purchases did not exert buyer power. While they were able to extract more favourable conditions than smaller purchasers, the sellers were able to export their produce, the sellers were dominant suppliers of another closely related product and the product was a 'must stock' item. Similarly, in *Nestle/Perrier*,⁴⁰ the Commission noted the 'must have' status of the brands and the price increases that the sellers had achieved over the preceding four years.
- 4.61 In the present circumstances, ComReg has considered the extent to which countervailing bargaining power at the wholesale level is exerted by purchasers of termination services in the relevant markets. Such operators purchase terminating services in order to enable their customers to make calls to an end-user or service provider connected to the network termination point controlled by the terminating operator.

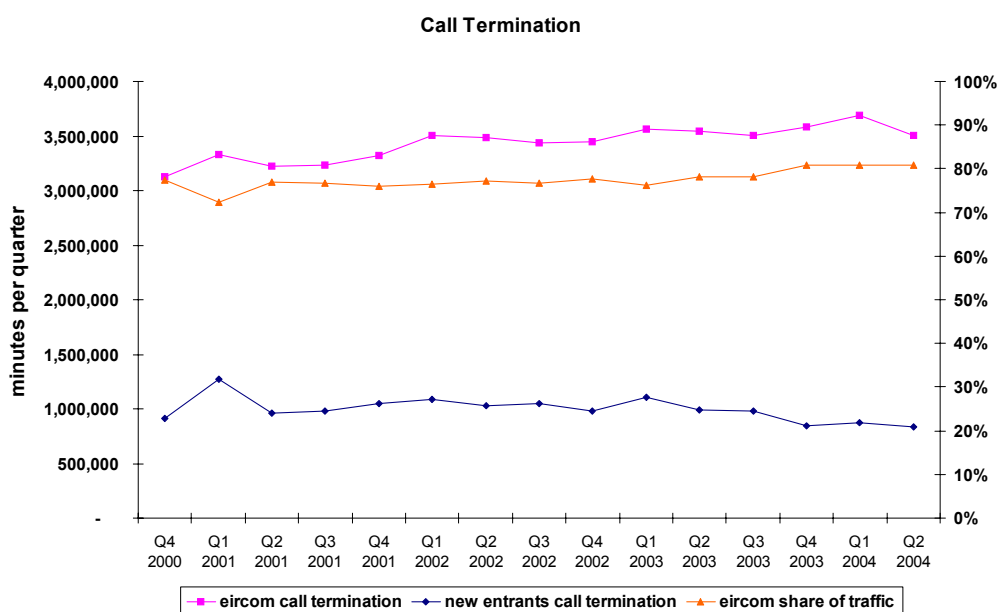


Figure 4.5: share of overall traffic for termination of calls to end users

- 4.62 The vast majority of termination services for calls to end-users are acquired from eircom (see figure 4.5 above). This puts eircom in a unique bargaining position in the sale of termination services for calls to end-users (particularly absent of regulation). While some of this bargaining power could be off-set by a general obligation to interconnect, smaller operators would still be far more sensitive to eircom's termination rates than *vice versa*. Thus, it is clear that further regulation of eircom termination rates would be necessary to protect OAOs from the exercise of such bargaining power. However, as described previously, OAOs have maintained the termination rates they charge to eircom at a level that is higher than the eircom regulated termination rate, which could suggest that the smaller operators are capable of exercising some market power in the situation where remedies are imposed on

³⁹ Case No IV/M.1313.

⁴⁰ Case No IV/M.190.

eircom only. In order to prevent any abuse of such market power, it would be necessary to impose some level of regulation on OAO termination for calls to end-users. This is discussed in Section 6.

- 4.63 As mentioned in Section 3 in the demand side analysis of the call termination markets for calls to end-users and calls to service providers, the competitive dynamics of supply of termination services providers are shaped, to a large part, by the payment flows.
- 4.64 It appears to ComReg that, in the market for call termination on multiple networks for calls to service providers, there are varying degrees of countervailing buyer power depending on the payment flows. In the case of calls which are calling-party-pays, such as those for internet access, the relationship between the terminating operator and the service provider is outside of the scope of this market review. However, this "buyer" relationship does influence the behaviour of the terminating operator in that it provides incentives to maximise the revenue share that can be offered to the service provider (to "win" the service provider from other terminating operators). However, the terminating operator negotiates the termination charge (and the origination retention) with the originating operator. In the absence of regulation, the call origination operator would be able to exercise its bargaining power over the terminating operator and set the level of retention at its own discretion.
- 4.65 Termination services acquired to provide called-party-pays calls to service providers are provided in a broader context in which the service provider has clear incentives to minimise the charges that it pays (or to maximise the fees received). The service provider has the ability to shop around or negotiate with the terminating operator. This pressure is exerted outside of the inter-operator relationship relating to the termination retention and the originating charge. However, competition amongst terminating operators to offer the service provider the best terms reduces the total revenue that is the subject of negotiation between the originating and terminating operator.
- 4.66 The interconnection relationship between two fixed direct access operators is reciprocal in the sense that each interconnection partner relies on the other for termination of calls originated by its own subscribers. In theory, an operator with a large share of subscribers may more easily do without the smaller one than *vice versa*. This suggests that in an unregulated environment large operators (in terms of subscribers) would have more bargaining power than smaller ones. This market power aspect, besides the general aim of safeguarding any-to-any connectivity, is the reason for imposing a general obligation to offer interconnection on all operators, independently of SMP. Because of the general obligation to interconnect, large operators are unlikely to have more bargaining power than smaller operators.

Barriers to entry and potential competition

- 4.67 The threat of market entry, either on a long-term or "hit and run" basis, is one of the main potential competitive constraints on incumbent firms, where such entry can be shown to be highly probable, timely and appreciable. In essence, the threat of market entry may prevent a dominant incumbent from raising prices above competitive levels. The threat of entry will be reduced by the existence of barriers to entry.
- 4.68 The relevant market for termination of retail calls to end-users in Ireland can be, depending on the size of each individual network, characterised by high and non-transitory entry barriers. It is obvious that the larger the undertaking the more

difficult it will be to enter the market and replicate its network. ComReg takes the view that while high costs (a large portion of which are sunk costs) can act as a barrier to market entry at least in the medium term, it is likely that smaller networks could be more easily replicated. In addition, a potential new entrant's inability to take advantage of the economies of scale and scope enjoyed by eircom, further compound the costs that would have to be recovered from the provision of each service. See paragraphs above concerning ComReg's view of the impact of economies of scale and scope.

- 4.69 In contrast, the relevant market for call termination for the provision of calls to service providers does not appear to be characterised by entry barriers of the same height. The ability of new entrants to "cluster" the called parties on concentrated local access facilities significantly reduces the nature and extent of the investment required to enter the market. However, potential new entrants still face barriers to entry flowing from their inability to take advantage of the same economies of scope and scale that can be enjoyed by an operator with a ubiquitous local access network.

Ability to leverage and vertical integration

- 4.70 ComReg's observations of behaviour in the markets for the provision of wholesale fixed origination and termination services suggests that eircom is able to leverage its dominance in the origination market into the relevant market for wholesale termination on eircom's network.
- 4.71 In particular, it would appear that, absent regulation, eircom would be able to leverage its market power in the provision of wholesale origination services to counter the lower barriers to entry by OAOs that exist in relation to the provision of wholesale non-geographic termination services (i.e. the lower investment costs of constructing local access facilities required to terminate non-geographic traffic).

Preliminary conclusions

- 4.72 Each fixed network operator should be designated as having SMP in the wholesale market for call termination for calls to end-users on its fixed public telephone network. Further, eircom should be designated as having SMP in the multi-network wholesale fixed market for call termination of calls to service providers.

Q. 13. Do you agree with the preliminary conclusions that each fixed network operator has SMP in the wholesale market for call termination for calls to end-users on its fixed public telephone network? Please provide a reasoned response.

Q. 14. Do you agree with the preliminary conclusions that eircom should be designated as having SMP in the multi-network wholesale fixed market for call termination for calls to service providers? Please provide a reasoned response.

Market Analysis: Transit

4.73 ComReg has defined a single relevant market for the provision of fixed transit services. It has taken the preliminary view that all providers of such services operate within a single multi-network relevant market. ComReg has assessed the relative import of particular factors relevant to identifying market power in relation to the provision of wholesale transit services, including:

- market shares;
- the extent to which the market dynamics indicate that any entity (or entities) has power over price;
- historical conduct suggestive of the existence of market power;
- countervailing buyer power;
- the existence of entry barriers and barriers to expansion (beyond more strategic advantages which amount to a 'first mover' advantage), including economies of scale and scope;
- ability to leverage key aspects of overall size or economic strength in the relevant market; and
- the extent of vertical integration.

Market shares

4.74 The SMP guidelines state that the existence of a dominant position cannot be established solely on the basis of large market shares. It requires NRAs to undertake a thorough and overall analysis of economic characteristics of the relevant market before coming to the conclusion as to the existence of significant market power.⁴¹ However the SMP guidelines state that according to established case law, very large market shares – in excess of 50% - are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position.⁴²

4.75 As described above, ComReg takes the view that such circumstances exist, largely by virtue of the market structure, in the relevant market for the call termination for retail calls to end-users. However, it has formed the preliminary view that no such exceptional circumstances exist in relation to the fixed transit market.

4.76 ComReg calculates that, including self supply, eircom provides approximately 69% of all fixed transit services in Ireland. Further, the data indicates that this share has remained relatively stable at between 68 and 74% over the last three years.

⁴¹ SMP Guidelines, Paragraph 78

⁴² SMP Guidelines, Para 75

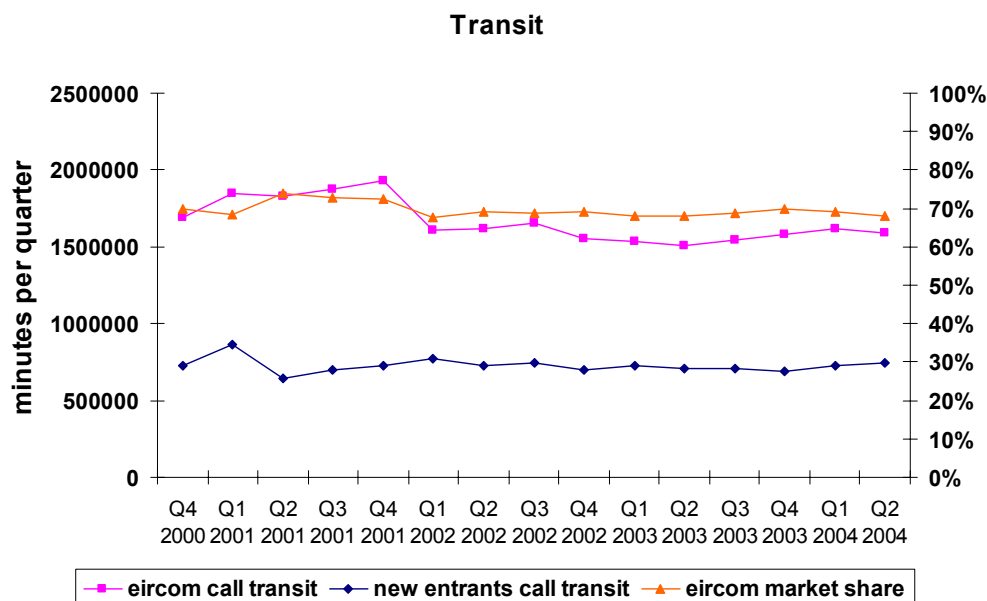
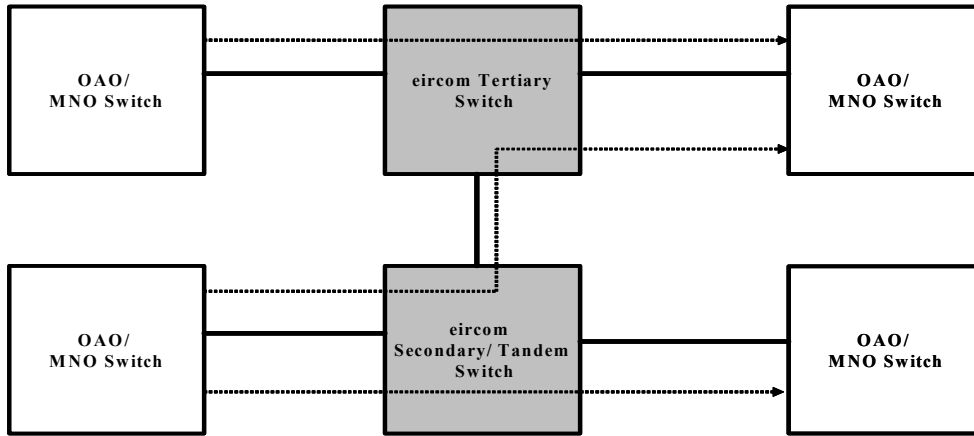


Figure 4.6: market share by volume in the market for wholesale transit services

Pricing behaviour

- 4.77 Traditionally and in contrast to the conclusions of the market definition for transit services, transit has been understood to be the conveyance of calls handed over for termination on networks within Ireland other than the transiting network (see figure 4.7 below). eircom accepts transit traffic destined for OAO geographic number ranges and for mobile networks at both the Secondary and Tertiary switches and hands off the call to the OAO/MNO at either the Secondary or Tertiary level depending on where the OAO/MNO has interconnect. Non-geographic transit traffic (e.g. NTC and 1891/1892) and transit to network specific codes (e.g. DQ) other than mobile numbers can only be delivered to the eircom network at the Tertiary switches but can be handed off at the Secondary or Tertiary level depending on where the OAO has interconnect.
- 4.78 Currently eircom call origination and termination services (including Primary, Tandem and Double Tandem call routing) are charged to third parties based on cost recovery principals. As mentioned previously, rates are derived through a top-down LRIC model. Transit charges (as set out below) are also derived using the same model, on the basis of the appropriate routing characteristics. Some pricing elements that eircom has previously included as components of call origination and termination (i.e. Tandem and Double Tandem) will now fall into the transit market.

Figure 4.7: Carriage of calls over the eircom network that fall within the traditional understanding of transit



4.79 eircom’s transit services are currently regulated, using a top-down LRIC model, as appropriate for the routing of each call. ComReg notes that some routing factors that have been regulated as components of origination and termination services (i.e. tandem and double services) will now fall within the transit market. The following graph shows the price of a three minute call at peak period and illustrates the high level of stability in eircom’s transit pricing, at least for the last three years.

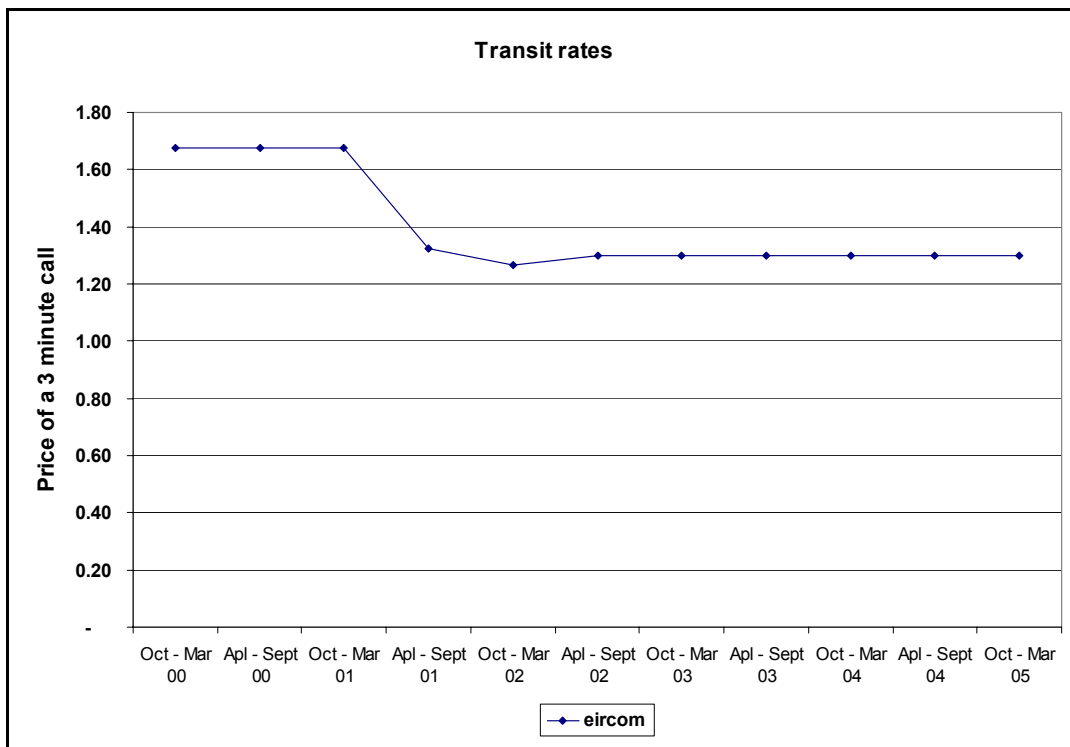


Figure 4.8: eircom’s wholesale transit rates for a 3 minute call at peak periods

4.80 ComReg understands that EsatBT has been supplying small amounts of third party transit services since early 2002, although no pricing information on this service is currently available.

Conduct indicative of market power

4.81 ComReg has been required to intervene in relation to eircom's initial refusal to supply wholesale transit services, and its subsequent conduct relating to the provision of such services. Such complaints have related to the following types of conduct:

- misuse of information provided by competitors for the purposes of interconnection (both information about such competitors and their customers);
- discriminatory conditions of supply; and
- pricing of transit services (capacity and calls).

4.82 ComReg considers that eircom's conduct is, and has been, indicative of market power in the market for wholesale call origination.

Countervailing bargaining power

4.83 If an operator engages in practices that are potentially exploitative, customers might be able to exert countervailing buyer power against such practices. Where buyers are large and powerful, they might be in a position to effectively respond to any attempt to increase prices by sellers. ComReg has considered the existence of countervailing buyer power in the fixed transit market, and the circumstances in which wholesale or retail customers that can influence the behaviour of any supplier of transit services that would appear to have market power.

4.84 Countervailing buyer power exists where large customers have the ability (within a reasonable timeframe) to resort to credible alternatives (e.g. not to purchase or to switch supplier) in response to a price increase or threatened price increase or other deterioration in the conditions of delivery.

4.85 ComReg is of the view that countervailing buyer power does not yet exist in relation to the supply of fixed transit services in Ireland. It is possible that, as alternative suppliers enter the market over time, customers will acquire the supply alternatives that allow them to credibly threaten to change suppliers.

Barriers to entry and expansion, and potential competition

4.86 The threat of market entry, either on a long-term or "hit and run" basis, is one of the main potential competitive constraints on incumbent firms, where such entry can be shown to be highly probable, timely and appreciable. In essence, the threat of market entry may prevent a dominant incumbent from raising prices above competitive levels. The threat of entry will be reduced by the existence of barriers to entry.

4.87 The relevant market for fixed transit in Ireland is characterised by high and non-transitory entry barriers. While these barriers are somewhat lower than those present in relation to the provision of wholesale fixed origination and fixed geographic termination services, they remain significant. In particular, ComReg takes the view that the high costs (a large portion of which are sunk costs) and relatively low volumes of traffic that can be 'contested' by new entrant operators preclude such market entry, at least in the medium term.

- 4.88 The relatively small volumes of traffic for which a potential new entrant can compete, inhibit the ability of a potential new entrant to create the economies of scale and scope that are necessary to successfully provide transit services. Building the facilities to provide or acquiring the appropriate underlying capacity requires a significant underlying investment from the potential entrant (particularly in relation to the construction of such facilities). Such investments will only be made where the risk that the costs will be recoverable through retail sales is justifiable.
- 4.89 In addition, the narrower range of retail services that new entrant providers provide (at least initially) add further pressure to cost recovery, increasing the portion of the cost base that would have to be recovered from the provision of each service. See paragraphs above regarding ComReg's view of the impact of economies of scale and scope.
- 4.90 To date, there has been limited roll out of OAO infrastructure with primary and/or tandem switching capability that could potentially compete with eircom in the provision of switched calls to third parties. With the exception of small levels of traffic provided by EsatBT, all traffic conveyed through these switches is self-supplied. The maps below illustrate the locations of primary and secondary switches belonging to the larger fixed networks in Ireland. Currently eircom have 33 primary switches and 16 tandem switches, while EsatBT have 4 tandem switches and MCI have 10. EsatBT has in the past also engaged in a joint venture with CIE to build additional fibre networks along its railway infrastructure, although this is more appropriately dealt with in the market review of leased line markets.

Figure 4.9: eircom secondary/tandem exchanges (exchanges with dual primary/secondary functionality are in blue)

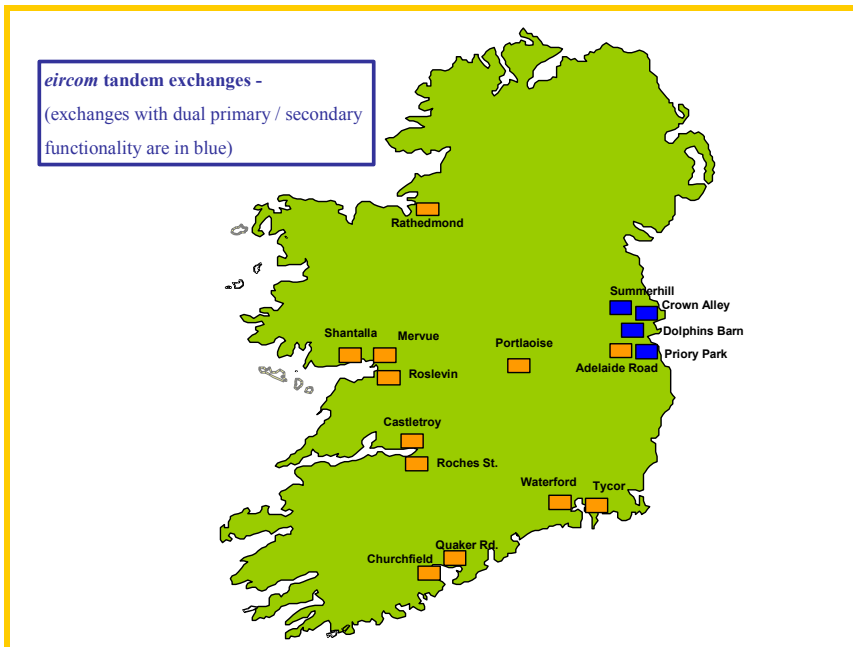


Figure 4.10: eircom primary exchanges

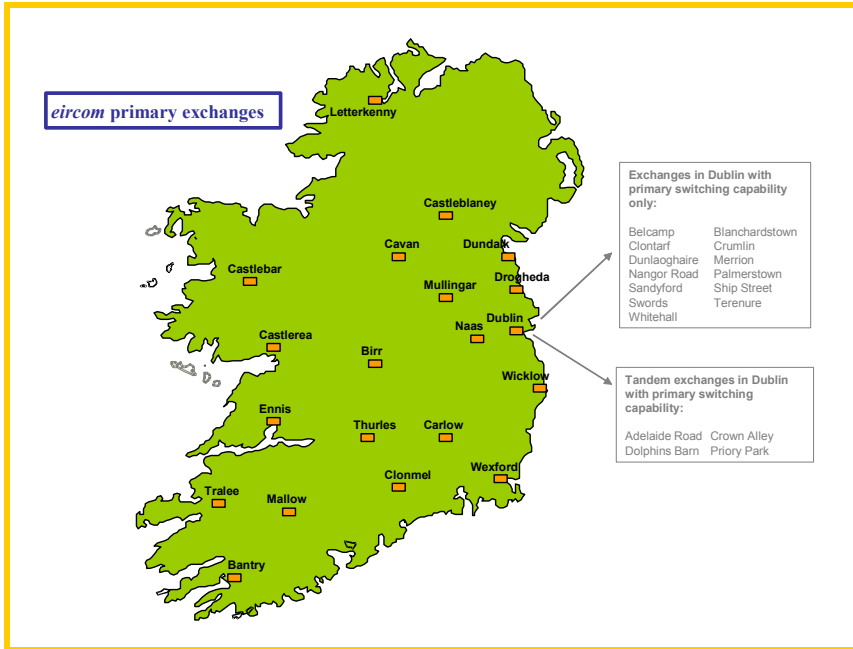
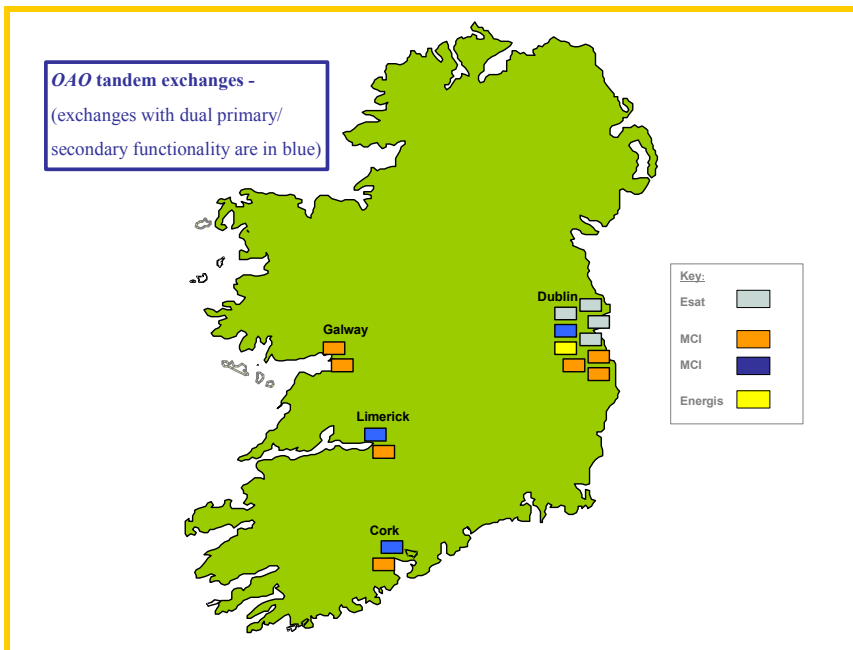


Figure 4.11: OAO tandem exchanges (exchanges with dual primary/secondary functionality are in blue)



4.91 ComReg considers that the limited roll out and third-party provision of OAO infrastructure with primary and/or tandem switching capability will continue to be insufficient to exert a competitive pressure on eircom’s transit services within the timeframe of this review.

- 4.92 As discussed above, Metropolitan Area Networks are currently being developed to deliver broadband services to high density clusters of users (such as business parks) and to provide basic infrastructure for deploying other technologies such as DSL. However, these MANs are not used to provide retail fixed narrowband services.
- 4.93 The Electricity Supply Board (ESB) was also awarded funding under the National Development Plan 2000-2006, to build a national backbone infrastructure. Fibre has been deployed around the existing ESB electricity network. ESB manages the network as a 'carriers' carrier' meaning it will lease capacity to other operators rather than engaging in the retail market itself. The ESB network comprises a Southern ring and a Northern Ring. The Southern Ring runs from Dublin to Shannon, Limerick, Cork, Waterford, Wexford, Arklow and back to Dublin. However, this project is aimed at enabling high-speed broadband packages to be available to towns on the ESB Telecoms fibre optic network and would not compete with eircom in the provision of narrowband switched calls to third parties. In addition, services have only recently become available on the ESB network and take up is believed to be limited at this stage of development.
- 4.94 The mobile network operators have begun to self-provide transit services (at least in relation to high volume routes on which they are confident that there is sufficient traffic to warrant the investment). However, they do so largely using leased capacity. Further, they acquire sufficient capacity to meet their own needs, and only acquire such capacity on particular routes. They clearly lack both the spare capacity and the necessary ubiquity to enter the market in the short-term. Further, they do not have the billing, account management and similar ancillary systems that would be necessary to sell services to wholesale customers in the short-term.
- 4.95 ComReg considers that there is little potential competition that could enter the market in the relevant timeframe.

Ability to leverage and vertical integration

- 4.96 ComReg's observations of behaviour in the markets for the provision of wholesale transit services suggests that eircom is able to leverage its dominance in the origination market into the self-provision of wholesale transit services. Further, it is able to vertically leverage the coverage of, and the capacity available on, its extensive underlying network facilities.

Preliminary conclusions

- 4.97 eircom should be designated as having SMP in the wholesale market for transit services on the fixed public telephone network. ComReg does not believe that it is likely that any current provider or potential entrant will impose a competitive constraint on eircom within the timeframe of this review. ComReg's analysis shows evidence that, in the absence of regulation, market forces would be unable to constraint the pricing of transit.

Q. 15. Do you agree with the above preliminary conclusions regarding market analysis in the market for wholesale transit services on the fixed public telephone network? Please provide a reasoned response.

5 Designation of Undertakings with Significant Market Power

- 5.1 Having regard for the sections above, particularly Sections 3 and 4, ComReg is of the view that, in accordance with the Framework Regulations, eircom Ltd should be designated as having SMP in the:
- National market for wholesale call origination services on the public telephone network provided at a fixed location;
 - National market for wholesale call termination services used to provide retail calls to end-users on each public telephone network, provided at a fixed location;
 - National market for wholesale call termination services used to provide retail calls to service providers on public telephone networks, provided at a fixed location; and
 - National market for wholesale call transit services on the public telephone network provided at a fixed location.
- 5.2 In addition, ComReg is of the view that all undertakings providing fixed call termination services for retail calls to end-users on its fixed public telephone network shall be designated as having SMP (these undertakings are set out in Annex C).
- 5.3 A reference in this section to any given undertaking shall be taken to include any and all undertakings which are affiliated with, or controlled by, the undertaking in question.
- 5.4 This market review has defined four relevant markets in Ireland which are concerned with interconnection to the public telephone network. For each market, ComReg has analysed the market characteristics, and has concluded that eircom has SMP in all markets while all fixed terminating operators have SMP in the market for fixed call termination services on their own networks.

6 Proposed Market Remedies

Proposed Wholesale Interconnection Market Remedies

- 6.1 In this section ComReg sets out the following; (i) Summary of preliminary SMP findings, (ii) Remedies available in principle. Then for each market we describe: (i) Competition problems; and (ii) Proposed remedies.
- 6.2 As also noted in Section 5, ComReg proposes to designate all undertakings providing call termination services for calls to end-users, on their fixed networks as having SMP.
- 6.3 Pursuant to the *Framework Regulations*, ComReg is obliged to impose specific obligations as it considers appropriate where a designation of SMP has been made pursuant to Regulation 27 (4). These SMP obligations are set out in Regulations 10-14 of the *Access Regulations*.
- 6.4 ComReg may also propose additional obligations. For SMP operators, ComReg may, in exceptional circumstances, propose to apply additional obligations to those set out in Regulations 10-14 of the *Access Regulations*. In such circumstances ComReg must obtain permission from the European Commission. Regulation 6 of the *Access Regulations* allows for the application of other access and interconnection obligations, so-called non-SMP obligations, which, for example, may be designed to ensure end-to-end connectivity.
- 6.5 In this chapter ComReg discusses the specific obligations that may be applied and assesses what obligations are appropriate.
- 6.6 In determining the appropriateness of SMP obligations, ComReg is guided by the objectives set out in Section 12 of the *Communications Regulation Act 2002* and those set out in Regulation 6 of the *Access Regulations*.

SMP Obligations that can be applied by ComReg

- 6.7 The *Access Regulations* provide ComReg with a number of obligations it can apply to SMP designated operators. The specific obligations that can be applied by ComReg include:
 - Transparency (Regulation 10);
 - Non-Discrimination (Regulation 11);
 - Accounting Separation (Regulation 12);
 - Access to, and use of, specific network facilities (Regulation 13); and
 - Price Control and Cost Accounting (Regulation 14).
- 6.8 Regulation 9(6) of the *Access Regulations* states any obligations imposed by ComReg in accordance with the *Access Regulations* shall:
 - be based on the nature of the problem identified;
 - be proportionate and justified in the light of the objectives laid down in section 12 of the *Communications Regulation Act 2002*, and
 - only be imposed following consultation in accordance with Regulations 19 and 20 of the *Framework Regulations*.

- 6.9 In assessing the appropriateness of obligations to apply to undertakings designated as having SMP in any of the markets in this review, ComReg needs first to identify the nature of the problems that may exist or arise in these markets.
- 6.10 The problems in these markets of particular concern to ComReg are those which adversely affect competition. Where competition is adversely affected, efficiency tends to be undermined, the sustainability of competition is usually compromised, and end-users tend not to enjoy the maximum possible benefits.

Competition problems in general

- 6.11 It is helpful before addressing specific problems that may exist or arise in the origination, transit and termination markets, for ComReg to discuss, in general, the kinds of actual and potential competition problems that may feature in wholesale interconnection markets. Such problems are affected by the structural characteristics prevailing in these markets.
- 6.12 ComReg believes that there are considerable entry costs associated with the markets in this review, and that these present formidable barriers to entry. However, the architecture of telecoms networks is such that the transit market benefits more from economies of density relative to origination and termination. Accordingly, the transit market has witnessed market entry in the provision of transit services to third parties in a small scale and may well witness the progressive evolution of competition at a faster pace than the origination and termination markets however this is not expected over the lifetime of this review.
- 6.13 In dealing with competition problems therefore ComReg will seek, where appropriate, to apply remedies that promote infrastructure based competition into the wholesale transit market which is regarded as relatively more contestable, over the lifetime of this review, than the markets for origination and termination.
- 6.14 In general competition problems in the markets in this review are likely to fall into three broad categories:⁴³
- Leverage;
 - Single market dominance; and
 - Matters relating to termination.
- 6.15 Leverage is the application by an undertaking of market power enjoyed in one market to another closely related potentially competitive market. As leverage problems characterise the transfer of market power, they can arise in both vertical and horizontal settings.
- 6.16 Vertical leverage may arise when a firm controls an input that is essential for a potentially competitive downstream industry. The upstream bottleneck owner can then alter downstream competition by denying access or limiting access to its input. Many of the ‘upstream’ wholesale interconnect products in this review are essential inputs in the potentially competitive downstream retail markets. Hence, an undertaking identified as having SMP in any one of the markets in this review and which also operates in one or more of the potentially downstream competitive

⁴³ These categories are in accordance with the problems outlined in “ERG Common Position on the approach to appropriate remedies in the new regulatory framework”, April 2004.

markets, has the potential to engage in vertical leverage. The most obvious illustration of vertical leverage is denial of access or refusal to deal.

- 6.17 Vertical leverage can also be applied via price and non-price means whereby an SMP operator may attempt to leverage its market power by being prepared to supply a good or a service only on unreasonable terms.
- 6.18 In particular where mandated access is required there are increased incentives for SMP operators to engage in non-price leveraging strategies. These include discriminatory use or withholding of information; delaying tactics; undue requirements such as adverse contractual arrangements; quality discrimination; strategic design of product characteristics to suit the SMP operator's downstream arm; and undue use of information about competitors.
- 6.19 Examples of leveraging by pricing means include margin squeeze, price discrimination, and predatory pricing. An example of using price to affect vertical leverage is the application of a price squeeze. A price squeeze involves an SMP operator setting a price for a wholesale input such that the buyer of an input, who is equally as efficient as the wholesale provider in the related downstream market, is unable to operate profitably and is squeezed out of the related potentially competitive downstream market.
- 6.20 Horizontal leverage occurs when market power is transferred by an undertaking from one market in the value chain to another related potentially competitive market at the same level in the value chain. Examples of horizontal leverage of relevance to the markets in this review include product bundling/tying and cross-subsidisation.
- 6.21 Single market dominance can involve an undertaking applying its market power so as to defend its market power, or applying its market power to the disadvantage of end-users. Examples of single market dominance would include the erection of entry barriers (entry deterrence) and the setting of prices in excess of costs (exploitative behaviour). Single market dominance may also give rise to productive inefficiencies, where an undertaking identified with SMP could, because of an absence of sustainable or effective competition, produce outputs at too high a cost.
- 6.22 Termination problems are specific to call termination markets. For example, an undertaking having SMP on a call termination market may apply its market power by setting excessive prices for terminating calls onto its network. High prices for termination may also arise due to firms tacitly colluding.
- 6.23 All of the above general problems are relevant to the markets considered in this review.

Principles to be applied when selecting obligations

- 6.24 When selecting appropriate obligations from the *Access Regulations* to address the competition problems identified in the wholesale markets in this review, ComReg has an obligation to consider the objectives of Section 12 of the *Communications Regulation Act 2002* (to promote competition, to contribute to the development of the internal market, and to promote the interests of users) and of Regulation 6 of the *Access Regulations* (to promote efficiency, promote sustainable competition, and give maximum benefit to end-users).
- 6.25 Furthermore Regulation 9 of the *Access Regulations* requires that any obligations imposed by ComReg must be based on the nature of the problem identified, and be

proportionate and justified in the light of the objectives laid down in Section 12 of the *Communications Regulation Act 2002*.

- 6.26 On the basis of its market analysis ComReg feels it is unlikely, within the period of this review, that there will be any significant development leading to sustainable competition in any of the markets in this review. Notwithstanding this, ComReg will choose appropriate remedies to encourage efficient investment and innovation and further promote an environment that promotes sustainable competition.
- 6.27 Where problems are identified in specific markets and an undertaking(s) has been designated as having SMP, ComReg will select obligations based on the nature of the problem identified and will ensure that these are proportionate. Where possible, consideration will be given to a range of obligations and the least burdensome effective set of obligations will be selected. An effective obligation is one that remedies the problem identified and promotes sustainable competition.
- 6.28 ComReg believes that sustainable competition in the markets in this review is more likely to emerge where the replication of infrastructure occurs. ComReg will therefore seek to design obligations in these markets in such a way that takes account of infrastructure investment incentives and the effect such investments have on sustainable competition.
- 6.29 Where ComReg's market analysis suggests that replication of an SMP operator's infrastructure is feasible and desirable with regard to the promotion of sustainable competition, obligations will be designed where possible to assist in the transition process to a sustainable competitive market. ComReg may therefore design access obligations to enable non-SMP operators to make incremental steps along the 'investment ladder'.⁴⁴
- 6.30 ComReg emphasises that in designing obligations to promote sustainable competition in these markets, and in particular where obligations are designed to enable access to and use of specific network elements and associated facilities, it will take account of the requirements outlined in Regulation 13(4) of the *Access Regulations*. In this regard ComReg will take due account of the implications of access obligations on facility owners.
- 6.31 Where ComReg's market analysis suggests that significant infrastructure competition is not likely to be feasible within the period under review, remedies may be chosen to ensure that there is sufficient access to wholesale inputs to enable service based competition to flourish.
- 6.32 In general, obligations will be designed by ComReg to exhibit predictability and transparency. By so doing, this should provide greater comfort to businesses when making long-term investment decisions. ComReg will also take account of potential effects on related markets and will also include a Regulatory Impact Analysis of the proposed obligations.
- 6.33 Finally, ComReg will seek to design and apply obligations in these markets that are incentive compatible. The means that, wherever possible, each SMP operator will have an incentive to comply with obligations.

⁴⁴ See ERG Common Position on the approach to appropriate remedies in the new regulatory framework", April 2004.

Q. 16. Do you agree with the principles ComReg proposes to adopt when selecting obligations in this market? Are there other principles that ComReg should consider when selecting appropriate obligations?

Proposed Remedies

- 6.34 In the following sections, ComReg addresses the actual and potential competition problems which it considers could arise in the relevant market, in the absence of regulation, as a result of the preliminary designation of eircom with SMP.
- 6.35 ComReg then sets out the detailed remedies that it proposes to impose on eircom and other SMP operators and assesses these against the principles set out above. In the consideration of remedies below, ComReg has set out remedies that it considers to be appropriate at this time and in the prevailing market conditions. ComReg will however continue to monitor market developments and where appropriate may issue further directions refining these remedies.
- 6.36 This analysis is repeated for each identified relevant market.

The Call Origination Market

- 6.37 As set out in section 3, call origination is the service that transmits switched calls from the first point of concentration through the primary switching stage. In order to self supply this service an operator must have access to end-users via the local loop, i.e. the access network that connects end-users to the first point of concentration. ComReg does not believe that replication of the local loop is feasible in the period of this review. In the absence of an operator having a direct connection to end-users it could lease a direct connection from eircom via local loop unbundling (LLU) and then self supply call origination. Using LLU to connect to end-users requires considerable investment in infrastructure and therefore, in the main, competing operators have availed of indirect access (via carrier pre-selection, carrier selection, or carrier access). With indirect access competing operators purchase the wholesale origination services from the operator with the direct connection to the end customers (overwhelmingly eircom) to a point of interconnection with their own network.
- 6.38 In the market analysis of the wholesale call origination market and in the market review of retail narrowband access, ComReg showed that few operators other than eircom have so far built direct connections to end-users. While it is possible to connect to certain large customers, ComReg does not consider it to be feasible within the lifetime of this review for OAOs to replicate the entire, or even significant portions of, the eircom local access network. It is not feasible because the scale of investment exceeds what is possible within the timeframe of this review, and it is not desirable because the duplication of eircom's local access network would not maximise consumer benefits.
- 6.39 ComReg believes that while LLU will promote further competition and benefit for end-users, these regulations alone will not be sufficient to maximise consumer benefits within the timeframe of this review as the scale of investment required to replicate the eircom originating network, i.e. from each point of concentration to the

primary switching level, is too great a barrier to overcome. Consequently ComReg needs to consider whether the application of additional remedies in the origination market in this review would be required to promote competition and deliver significant consumer benefits.

- 6.40 Thus for an OAO in Ireland to be able to supply a retail telephone service to end-users, it needs to interconnect with eircom. This is likely to remain the primary means by which an OAO can offer retail services during the lifetime of this review. This conclusion indicates that remedies should be designed in the first instance to provide OAOs with sufficient access to wholesale inputs.
- 6.41 Wholesale call origination products are essential inputs necessary, along with transit and call termination, to enable the production or supply of retail telephone services. In this review such retail telephone services include voice telephony, dial-up narrowband internet access (metered or un-metered), and calls to other service providers. In the absence of a call origination input, an operator would not be able to offer end-users a retail telephone service.

Competition problems in the call origination market

- 6.42 In the absence of *ex ante* regulation, it is very unlikely that eircom would have any incentive to offer access to its facilities on reasonable terms to a competing OAO. ComReg considers that eircom would **refuse to deal** or indeed may offer access on terms and conditions which amount to constructive **denial of access**. Since interconnection was required by European and Irish legislation in 1997, ComReg has made numerous interventions mandating and shaping the interconnect services available to OAOs, and has been called upon to scrutinise the terms and conditions of interconnection, and processes around these services. In particular when implementing requests for new interconnection products ComReg has chaired and actively participated in industry fora. Intervention has continued even in recent times, for example in ComReg Document 01/03. ComReg has also been involved in setting charges for interconnection capacity and calls throughout each of the years from 1997 to date.
- 6.43 Even with the application mandated interconnection at cost oriented prices, ComReg has had occasion to intervene in the wholesale origination market on numerous occasions to deal with competition problems. These have involved complaints lodged by OAOs alleging competition problems of a non-price nature, including discriminatory use or withholding of information; delaying tactics; undue requirements; quality discrimination; strategic design of products; and undue use of information about competitors.
- 6.44 When developing new interconnection products, OAOs complained that products were designed so as to provide advantage to eircom's downstream arms, for example ComReg received complaints in relation to the handover for the new 1892 internet service in 2002 (Dispute Resolution: Final Determination 01/02). ComReg also received complaints that eircom forced OAOs to interconnect at points which were inefficient for their networks.
- 6.45 Information on points of interconnect essential for OAOs to plan their business cases was only provided following intervention by ComReg and represents an example of withholding of information. Similar complaints were made by OAOs in the implementation of FRIACO.

- 6.46 ComReg was also required to intervene on amending terms and conditions required by eircom when amending wholesale products and considered these to represent undue contractual requirements.
- 6.47 ComReg has also ensured that Service Level Agreements for new and existing interconnection services were developed by eircom where it was considered necessary to ensure services were delivered within reasonable timeframes and under appropriate conditions from eircom. OAOs had raised concerns regarding delaying tactics and quality discrimination in delivery of associated facilities for interconnection. An example of such an intervention was Decision D10/02 where ComReg stated that should operators request SLAs for existing RIO services, eircom would be required to develop them, and in the case of new services, ComReg would decide whether an SLA should be developed and provided by eircom before it would give approval to the launch of new RIO services.
- 6.48 OAOs had also raised complaints about alleged misuse of information about their customers and ComReg required the establishment of wholesale product areas and processes to ensure OAOs' interests were protected. Again the need for Decision D10/02 illustrates the problems encountered by OAOs in this regard.
- 6.49 Although mandating access to wholesale origination at cost ought to remedy competition problems relating to price, the complexities of allocating costs in this market can still give rise to allegations of the application of a margin squeeze. Currently, the charges which eircom can apply are regulated at both a wholesale and a retail level and ComReg believes that this regulation has to date ensured that such problems have been minimised. However ComReg has had to intervene to direct revised interconnection charges on numerous occasions..
- 6.50 As eircom is a vertically integrated operator with market power in the wholesale call origination markets, in the absence of appropriate *ex ante* regulation of wholesale products, it would be in a position to exert its market power and may abuse this power by, for example:
- charging an excessive price for wholesale inputs;
 - foreclosing the development of competitive downstream retail markets by means of a price squeeze;
 - performing cross subsidisation by charging lower prices in another market which is subsidised by higher interconnect rates;
 - Discriminate against OAOs by charging higher rates to OAOs than it does to its retail arm. As the retail arm is charged by means of internal transfers where there are no payments actually made, an eircom will not suffer overall from setting interconnect rates higher than they should be.
 - eircom could perform predatory pricing by inflating costs in order to increase rates in the short term to ensure OAOs are not in a position to earn a margin on calls/services and thus increase their market share. This would again be a form of margin squeeze as mentioned above.
- 6.51 As it is proposed to designate eircom with SMP in the call origination market there are also the possibilities of further competition problems which could lead to the exploitation of consumers. This exploitation could arise in the current market if eircom were to engage in entry deterrence, exploitive behaviour through excessive pricing and productive inefficiencies. These issues are further

explained below in the context of the market for call origination in the fixed telecoms market.

Q. 17. Do you agree that in the absence of *ex ante* regulation eircom would have little or no incentive to offer reasonable access to call origination services to OAOs competing against eircom's retail businesses? Are there other competition problems, not mentioned in this section, which have occurred or may occur in this market that ComReg should also take into account when formulating appropriate remedies in this market? Please provide details of such problems.

Appropriate obligations: call origination

- 6.52 As demonstrated in the section on Market Analysis Section 4, eircom is the only network operator currently in a position to offer ubiquitous wholesale call origination products in the Irish market. ComReg therefore believes that appropriate *ex ante* regulation of eircom's wholesale call origination products is essential to lay the foundations for establishing sustainable competition in fixed retail telecoms markets.
- 6.53 In establishing an *ex ante* regulatory framework designed to facilitate sustainable competition, ComReg needs to ensure that obligations applied on eircom in this market are proportionate to the problems identified. In assessing what is proportionate, ComReg will take account of the effectiveness of obligations for dealing with the problems identified, and take account of the costs associated with the obligations.
- 6.54 In this market, ComReg has considered whether it would be possible to remedy problems by establishing a 'light-handed' *ex ante* regulatory framework that would oversee commercial wholesale call origination negotiations. Such regulation would tend to impose a low cost on the SMP operator eircom. However, while the burden on eircom would be relatively light, as stated above, at the present time ComReg believes eircom would have little incentive to offer fair and reasonable interconnection terms to OAOs it competes against in related downstream markets.
- 6.55 ComReg believes therefore that at a minimum the appropriate suite of obligations needed to remedy problems in this market requires measures directed towards facilitating access to, and the use of, facilities. However, the appropriate form of access needs to be considered by ComReg.
- 6.56 In discussing the appropriate application of obligations in this market, ComReg also needs to adopt a forward-looking perspective. While it is recognised that mandating some form of access to wholesale call origination services is required to deal with problems over the lifetime of this review, in the future ComReg may rely on other, less onerous, obligations.
- 6.57 If the wholesale call origination market were to become more competitive, ComReg may not need to rely upon mandated access regulations. However, it may still be necessary for ComReg to apply measures directed against the application of

discrimination by SMP operators. Hence transparency and non-discrimination obligations may still be required to further promote competition.

6.58 ComReg therefore commences the discussion of obligations by considering transparency initially and then non-discrimination requirements, before moving onto its discussion of the appropriate form of access obligations in this market.

Transparency

6.59 It could be argued that the least intrusive and least onerous obligation under the Access Regulations (Regulation 10) is transparency. For example, transparency would require eircom to make public specified information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices. This could be done, as at present, by requiring eircom to make public a 'Reference Interconnection Offer' (RIO) that specifies information about wholesale call origination products.

6.60 Transparency would allow ComReg and OAOs to observe price and non-price terms and conditions for eircom's wholesale call origination products. However, on its own, transparency could not guard against the setting of excessive prices, the imposition of undue requirements, and the application of discriminatory practices by eircom. Furthermore, transparency alone would not be able to tackle problems of delay, especially in relation to new products and to products demanded by OAOs which are not demanded or used by eircom. However, transparency would make clearer whether discriminatory practices are applied by the SMP operator.

6.61 ComReg therefore believes that transparency, while having the desirable property of being 'light-handed', is insufficient on its own for dealing with the competition problems identified in this market. As such, ComReg believes that transparency is a necessary obligation to make effective other obligations in this market. This view is considered further in the discussion of the other obligations that may be applied on eircom by ComReg in the wholesale call origination market.

6.62 ComReg believes it will also be necessary to impose obligations of transparency in support of any accounting separation obligations, as this would allow the calculation of costs and prices (i.e. internal price transfers) to be rendered visible. Further, this would also allow ComReg to monitor compliance with any non-discrimination obligations, and address competition problems relating to cross subsidisation, price discrimination and the application of price squeezes.

Q. 18. Do you agree that, on its own, the application of a transparency obligation would not remedy the problems identified in this market? Do you agree that transparency, and in particular the requirement to make public interconnection terms and conditions, is a necessary remedy to problems actual and prospective in this market?

6.63 ComReg believes that requiring eircom to publish a Reference Interconnect Offer will promote speedier negotiations with OAOs and could reduce potential inter-operator disputes. In addition, it will provide OAOs with knowledge that the call

origination services they purchase are provided by eircom on a non discriminatory basis.

- 6.64 Therefore ComReg proposes to require eircom to publish a reference offer that is sufficiently unbundled to ensure that undertakings are not required to pay for facilities which are not necessary for the service requested. This should include a description of the relevant offerings broken down into components according to market needs; and a description of the associated terms and conditions, including prices. (In line with the access obligation on eircom not to withdraw access to facilities already granted) ComReg believes that eircom should continue to publish a Reference Offer containing details of access to facilities already granted. ComReg considers that this obligation would be met by the continued publication of call origination service schedules, prices, product descriptions and inter-operator process manuals contained in Core RIO document Version 3.11 and eircom RIO Price List Version 1.36.
- 6.65 ComReg has reached the preliminary view that access to International Services may be removed from this obligation as explained in section 3.138.

Q. 19. Do you agree that eircom should publish a Reference Interconnect Offer containing details of access to facilities already granted? Please detail your response.

- 6.66 In addition, ComReg considers that eircom should be required to publish (in relation to the access obligation it is proposed to in accordance with Regulation 13 (2) (c) of the *Access Regulations*) pursuant to Regulation 10 of the *Access Regulations*, specified information, such as technical specifications, network characteristics, terms and conditions for supply and use, and price which is necessary for the provision of new and existing call origination services. ComReg believes that this information should be published as part of the Reference Interconnect Offer.
- 6.67 ComReg considers that this obligation would be met by the continued publication of the relevant facilities in accordance with the terms, conditions and specifications contained in the Main body clauses, Annex A definitions, Billing and Payments Annex, located in the eircom Core RIO Document Version 3.11, Billing forms, Network Plan, Technical Manual, CLI CoP, Call Origination and Termination Routing Scheme, Non Disclosure Agreement, as published as stand alone documents on eircom's wholesale website and the prices contained in the eircom RIO Price List Version 1.36.

Q. 20. Do you agree that eircom should publish specified information which supports call origination services? Please detail your response.

- 6.68 ComReg is of the opinion that eircom should be required to provide and publish appropriate manuals, order forms and processes for new and existing services, the details to be determined on a case by case basis.

Q. 21. Do you agree that eircom should be required to publish appropriate manuals and documentation for new and existing Call Origination services? Please detail your response.

6.69 ComReg proposes pursuant to Regulation 10(3) of the *Access Regulations* that eircom should be required to publish the Reference Offer on its wholesale website.

Q. 22. Do you agree that eircom should publish a Reference Offer for Call Origination services on its wholesale website? Please detail your response.

6.70 A number of processes currently apply to the publication of eircom's RIO- these include the republication of the RIO when any price changes have been approved by ComReg, a text process that was mandated in D10/02, a process for the introduction of new interconnection and associated retail products, and the application of version control to RIO documents. ComReg believes that these obligations should be maintained as they are necessary to provide OAOs with sufficient notice of any changes to the eircom RIO and should apply to all the documents which apply to the call origination market.

Q. 23. Do you agree that the current processes that apply to the publication of eircom's RIO should be maintained for call origination services?

6.71 If eircom is designated with SMP in a relevant market, ComReg may impose obligations on eircom, in accordance with Regulation 10(1) of the *Access Regulations*, to ensure transparency in relation to interconnection, access or both interconnection and access, which would have the effect of requiring eircom to make public specified information.

Q. 24. Is there any additional information which eircom should provide to ComReg or industry or both to further support products and services in the RIO? Please support your answer with details.

6.72 The provision of itemised billing at the wholesale level has not up to now been a requirement, however as a further enhancement to the level of transparency in the wholesale call origination market ComReg believes that eircom should provide itemised billing to other authorised operators and that a formal process should be arrived at. The introduction of this would allow for a level of granularity that would enable operators to be in a position to perform reconciliations internally which are necessary to ensure there are no errors between respective operator systems and recording. Due to problems encountered by OAO's to date a certain level of itemisation is being provided by eircom and this is being improved on an ad hoc

basis and mainly on the request of other operators who encounter difficulty in reconciling bills from eircom to their in house systems. It is general practice in any industry that prior to payment of any bill a full breakdown of what the bill relates to is required by the paying party.

Q. 25. Do you agree that eircom should be required to provide itemised billing for call origination services? If you agree please indicate in what format this should be provided in order to provide the level of detail required to reconcile bills to a satisfactory level i.e. soft copy versus hard copy, whether it should be monthly/quarterly. If possible please also provide an approximation of the typical cost of providing this service and how this should be recovered.

Non-discrimination

- 6.73 While a transparency obligation may address some competition problems it cannot by itself remedy all competition problems such as those caused by vertical foreclosure. ComReg believes therefore that in addition to transparency, a non-discrimination obligation should be applied on eircom. The application of a non-discrimination obligation requires eircom to offer equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and would require eircom to provide services and information to others under the same conditions and of the same quality as it provides for its own services, or those of its subsidiaries or partners.
- 6.74 In particular ComReg proposes that eircom be required to provide information and services to alternative operators in timescales, on a basis, and of a quality, which are at least as good as those provided to eircom’s retail arm and associates⁴⁵.
- 6.75 ComReg regards the application of an obligation of non-discrimination on eircom as necessary for dealing with competition problems identified in this market. Without non-discrimination, it would be difficult to safeguard against foreclosure practices such as undue requirements. Further, non-discrimination is an essential complement to other obligations, particularly transparency and access (on the latter see below). For instance, where an access obligation has been imposed pursuant to Regulation 13 of the *Access Regulations*, an SMP operator may have increased incentives to discriminate on non-price parameters.
- 6.76 It is important that information gained by eircom as a result of their provision of wholesale call origination services to another operator is not improperly used by eircom’s downstream arms in any manner. For example in the specific case where an OAO approaches eircom seeking to develop a new call origination product (pursuant to a reasonable request being made for access), it is important that this OAO is afforded equivalent access to the relevant eircom departments, as eircom retail are afforded. In other words ComReg believes that eircom’s downstream arms should not have privileged access to the relevant eircom departments.

⁴⁵ ComReg considers that this obligation would be met by the maintenance of the process for the introduction of new RIO services directed in D10/02 ODTR document 02/55.

- 6.77 Furthermore, ComReg proposes that eircom should be required to apply a standard process for the development and introduction of new call origination services and elements, including standard documentation and timescales. This should ensure that cost allocations etc to these new services are such to ensure that OAO's and eircom's retail arm are presented with the same costs for equivalent services in a transparent manner.
- 6.78 ComReg considers the non-discrimination obligation is made more effective by the transparency obligation. However, ComReg also believes that it may be necessary to apply an obligation of accounting separation to strengthen further the non-discrimination obligation. This is discussed below in the discussion on accounting separation.

Q. 26. Do you agree that a non-discrimination obligation applied to eircom is necessary to remedy competition problems in the wholesale call origination market? Do you also agree that non-discrimination is a necessary complement to other obligations needed to remedy competition problems in this market? Do you agree that, in addition to provision of reasonable requests, eircom should also be required to provide products on a non-discriminatory basis and, as such, should be required to provide to other operators at least an equivalent wholesale call origination product to those services it provides to its retail arm? Please detail your response.

Access to and use of specific network elements and associated facilities

- 6.79 Given the considerable barriers to entry arising from sunk costs, as discussed in the market analysis Section 4, ComReg is of the view that infrastructure competition in the call origination market is unlikely to become sustainable during the lifetime of this review. This conclusion indicates that access obligations will play a crucial role in the emergence of sustainable competition. ComReg intends to promote an access regime that balances the interests of all operators in the market, which promotes service level competition that leads to the foundation of a market structure that makes infrastructure based competition in the future more likely. By adopting this approach, ComReg hopes that it will be able to roll back the obligations applicable to this market in future reviews.
- 6.80 The transparency and non-discrimination obligations discussed above are necessary but insufficient on their own for dealing with the competition problems in this market because the key competition concern in the wholesale call origination market relates to the denial of access to facilities or the application of unreasonable terms and conditions by eircom. In addition, non-discrimination and transparency would not be able to deal with products and services not currently used or supplied by eircom. For example, the obligation of non-discrimination on its own may not have been sufficient to oversee the development of the Flat Rate Internet Access Call Origination (FRIACO) product. ComReg is of the view that such problems would be very real in this market unless a remedy is effected that specifically tackles access

issues. As set out previously in the Section on Competition Problems for Call Origination, ComReg can cite numerous examples of access problems, and is therefore minded to apply an appropriate access obligation for dealing with problems in this market.

- 6.81 ComReg's analysis of the competition problems strongly suggests that wholesale access obligations are necessary so as to promote more effective competition in retail markets. On its own it is highly unlikely that eircom would offer sufficient wholesale products on reasonable terms through commercial negotiations with OAOs. ComReg is of the view that without appropriate access obligations eircom would have an incentive to apply unreasonable contractual terms on other operators, and to exercise non-price forms of discrimination that would likely delay the offering of access to other operators. Such behaviour would be construed as denial of access and would lead to the foreclosure of sustainable competition.
- 6.82 At present eircom is obliged to offer access at the wholesale interconnect level for all the services listed in the RIO. All of these services are also provided to the retail arm of eircom at prices incorporating charges for the utilisation of the same network elements at the same wholesale price, but reflecting the different utilisation of those elements by eircom retail and interconnected calls. ComReg considers that OAOs may require new or amended products such as non traditional interface wholesale products or revised FRIACO products to be developed.
- 6.83 ComReg could adopt two approaches when mandating an access obligation. One option is that ComReg could mandate access to, and use of, all of eircom's call origination facilities. ComReg considers this option to be overly interventionist and prescriptive.
- 6.84 Another option is that ComReg could require eircom to offer access to and use of its wholesale call origination services on a reasonable request basis. Under this option OAOs could specify the particular access and/or interconnection arrangements that they require. Such an access obligation would require eircom to meet reasonable requests for access to, and use of, specific network elements and associated facilities.
- 6.85 ComReg considers this latter option to be preferable as it allows OAOs the flexibility to request products according to their needs, and requires eircom to only develop products for which there is interest.
- 6.86 At this stage ComReg believes it to be appropriate to impose an obligation on eircom to meet reasonable requests from OAOs, pursuant to Regulation 13 (1) of the *Access Regulations* for such products. Any such request will be reviewed in the context of Regulation 13 (4) of the *Access Regulations*.
- 6.87 When considering whether or not to impose any access obligation under Regulation 13 (1) or 13 (2) of the *Access Regulations*, ComReg must take account of Regulation 13 (4) of the *Access Regulations*. These factors include, inter alia, the technical and economic viability of using or installing competing facilities, in the light of market development; the feasibility of providing the access proposed, in relation to the capacity available; the initial investment by the facility owner bearing in mind the risks involved in making the investment; and the need to safeguard competition in the long term. According to Regulation 13(3) of the *Access Regulations*, ComReg may attach further conditions to cover fairness, reasonableness and timeliness in respect of any obligations it imposes in accordance with Regulations 13(1) and 13(2) of the *Access Regulations*.

Q. 27. Do you agree that an access obligation for call origination should be imposed on eircom? Please provide details in support of your answer.

6.88 Turning to the detail, there are varying types of access obligations which can be imposed as set out in Regulation 13 of the *Access Regulations*. ComReg believes the following obligations should be imposed

6.89 Pursuant to Regulation 13 (2) (i) of the *Access Regulations* ComReg propose that eircom should be required to interconnect networks or network facilities. This is necessary to maintain eircom's obligation to interconnect with existing and new OAOs and ensure that the market functions.

Q. 28. Do you agree with ComReg's proposal to require eircom to interconnect networks or network facilities? Please detail your response.

6.90 Pursuant to Regulation 13 (2) (c) of the *Access Regulations* ComReg proposes that eircom should have an obligation not to withdraw access to facilities already granted. This is necessary to ensure that OAOs have the certainty to provide retail services to the marketplace and so compete with eircom. ComReg considers that this obligation would be met by the continued offering of call origination service schedules and prices contained in eircom's Core RIO document Version 3.11 and eircom RIO Price List Version 1.36. and product descriptions and inter-operator process manuals as currently published as stand alone documents on eircom's wholesale website.

6.91 ComRegs preliminary conclusion is that access to International Services can be removed from this obligation as explained in section 3.138.

6.92 There are circumstances where it may be desirable to withdraw access to facilities, for example when a facility is no longer needed and it is an undue burden on eircom to maintain it. ComReg therefore proposes to qualify the obligation on eircom allowing it to withdraw access to facilities already granted without prior ComReg approval and following a public consultation.

Q. 29. Do you agree that eircom should be required not to withdraw access to facilities already granted, save without prior ComReg approval which would only be granted following public consultation? Please detail your response.

6.93 Furthermore, pursuant to Regulation 13(2) (c) and 13 (3) of the *Access Regulations*, ComReg considers that eircom should be required to continue to provide specified information, such as technical specifications, network characteristics, terms and conditions for supply and use, and prices which is necessary for the provision of existing call origination services. ComReg considers that this obligation would be met by the continued offering of the relevant facilities in accordance with the terms, conditions and specifications contained in the Main body clauses, Annex A

definitions, Billing and Payments annex, located in the eircom Core RIO Document Version 3.11, Billing forms, Network Plan, Technical Manual, Calling Line Identification Code of Practice (CLI CoP), Call Origination and Termination Routing Scheme, Non Disclosure Agreement as published as stand alone documents on eircom's wholesale website and the prices contained in the eircom RIO Price List Version 1.36.

Q. 30. Do you agree with ComReg's proposal to require eircom to provide specified information which supports existing call origination services and to continue to provide such services in accordance with existing terms and conditions and specifications ? Please detail your response.

6.94 In the future and within the timescale of this review, ComReg considers that access seekers may need to avail of other products which are included within the definition of the relevant wholesale market that will allow them to develop retail offerings to compete in the retail market. An access remedy is the only remedy which allows OAOs to make reasonable requests for products according to their specifications pursuant to Regulation 13 (2) (a) or (f) of the *Access Regulations* . At this stage ComReg believes it to be overly interventionist and premature to mandate such products, but does propose to impose an obligation on eircom to meet reasonable requests from OAOs, pursuant to Regulation 13 (1) of the *Access Regulations* for such products. In cases where commercial negotiations are not successful any such requests will be reviewed in the context of Regulation 13 (4) of the *Access Regulations*. However at this stage ComReg proposes that imposition of any access remedy through Regulation 13 of the *Access Regulations* would be granted only when that remedy represents the only way to promote effective competition.

Q. 31. Do you agree that eircom should have an obligation to meet reasonable requests for access? Please detail your response.

Q. 32. If you believe that eircom should be required to answer reasonable requests for access for call origination, are there specific wholesale products or features or additional associated facilities not currently offered in the eircom RIO that should be provided by eircom? Please provide details of such products and why their inclusion in the RIO would remedy competition problems in this market.

6.95 Additionally, pursuant to Regulation 13 (2) (b) of the *Access Regulations* ComReg also believes that eircom should have the obligation to negotiate in good faith with undertakings requesting access. This is necessary to ensure that OAOs can approach eircom and ensure that their requests for new or amended products are treated promptly and appropriately.

6.96 Pursuant to Regulation 13 (3) of the *Access Regulations* ComReg considers that eircom's call origination services should must be provided on terms and conditions which are fair, reasonable and timely. In addition, ComReg believes that the terms and conditions should be supported by Service Level Agreements and compensation payments so as to provide for incentive compatibility.

Q. 33. Do you agree that eircom must provide call origination services on terms which are fair, reasonable and timely? In addition do you agree with ComReg's proposal that these terms and conditions should be supported by Service Level Agreements and compensation payments? Please detail your response.

6.97 ComReg proposes that eircom should be required to provide access to call origination services to competitors at an equivalent standard and at an equivalent time as the retail arm.

6.98 Furthermore ComReg proposes that eircom should be required to provide competitors with information necessary for access to its call origination services at an equivalent standard and an equivalent time as the retail arm. This should include information necessary to distinguish between different call routings that calls may have taken (e.g. eircom originated or transited from third parties) so that interconnect charges may be exactly calculated and reconciled.

Q. 34. Do you agree that eircom should provide access to and information necessary for access to call origination services to competitors at least equivalent times and standards as it provides to its retail arm? Please detail your response.

6.99 ComReg is of the opinion that eircom should be required to provide call origination services on an unbundled basis. The level of unbundling should be not less than offered at the time to its retail division or subsidiaries.

Q. 35. Do you agree that eircom should provide call origination services on an unbundled basis as part of its Access obligation? Please detail your response.

6.100 If the provision, by eircom, of certain products is mandated ComReg believes that there may be an incentive for eircom to limit access or make access more difficult. It is obviously necessary for OAOs to have open access to technical interfaces, protocols, and Operational Support Systems (OSS) such as is necessary for them to take up the mandated product and allow them to compete with eircom at the retail level in winning customers. Therefore, pursuant to Regulation 13 (2) (e) ComReg also considers it would be appropriate that, insofar as it is required by OAOs to avail of access, eircom be required, pursuant to Regulation 13 (2) (e) of the *Access*

Regulations, to grant open access to technical interfaces, protocols, or other key technologies and systems.

Q. 36. Do you agree that eircom should be required to grant open access to technical interfaces, protocols, or other key technologies and systems and should also be required to provide access to such OSS or similar software necessary to ensure fair competition in the provision of services? Please detail your response.

6.101 Access obligations, together with the transparency and non-discrimination obligations, would remedy many of the problems in this market, but their effectiveness would be greatly enhanced by accompanying obligations covering price control and cost accounting (see below).

Price control and Cost Accounting

6.102 The transparency, non-discrimination and access obligations discussed above would assist in creating a level playing field enabling greater service based competition in the retail calls market. However, on their own these obligations would not be able to tackle the possibility of the setting of excessive prices by eircom, or deal with problems related to possible inefficient investments undertaken by eircom. As such, while competition in service provision may be fostered, consumer benefits may not be maximised, due to the setting of excessive prices or occurrence of excessive costs.

6.103 In many markets where prices and/or costs are excessive, entry would occur and subsequent competition would re-align prices with costs. However, infrastructure competition in the wholesale origination market is expected to be limited over the life time of this review, and consequently entry that might otherwise constrain the prices set by the SMP operator in this market is highly unlikely. ComReg therefore believes that, in addition to the above obligations, a price control obligation is necessary to promote competition in the retail market and safeguard end-users against excessive prices.

6.104 ComReg has found in practice since the introduction of regulation many areas where eircom was found to present costing submissions which were excessive when compared to an equivalent efficient operator and which would lead to unfair charging at the wholesale level. In such cases ComReg and its predecessor the ODTR, was forced to make directions to have appropriate amendments made to ensure proposed wholesale charges were cost oriented.

6.105 A price control may take many forms, those which are less interventionist where ComReg could apply a price control based upon the concept of retail minus, whereby eircom would be permitted to set prices for wholesale services equal to their retail equivalents less avoidable costs or it may take a more intrusive form requiring prices to be cost oriented. In relation to retail minus, putting to one side the issue of whether an equivalent retail product exists, a suitably designed retail minus price control would deal with the application of a margin squeeze, but it would not address the problems associated with the application of excessive prices. ComReg believes

the possibility of excessive prices in this vital bottleneck service is sufficiently serious that a price control requiring cost oriented tariffs is preferred. Indeed, the current price control regulations applying in this market mandate cost oriented tariffs based on a Forward Looking-Long Run Incremental Costing (FL-LRIC) methodology and ComReg does not believe conditions have altered appreciably to justify their modification or removal.

- 6.106 Historically, OAOs in Ireland have purchased eircom's wholesale interconnect origination services to enable the offering of retail services to end-users in areas where they lacked local access networks. Because of the problems of vertical foreclosure, access to eircom's wholesale interconnect services was mandated using cost oriented price reviews based on FL-LRIC costing methods. The access obligation and the price control obligation have enabled service based competition, and as a consequence efficient OAOs have been able to grow larger customer bases. As the customer bases of OAOs achieve a critical mass, it is envisaged that this will lead to a more stable environment for further infrastructure investments in the core networks by the OAOs. Such investments over the course of time should reach further to the customer locations.
- 6.107 Through current regulatory requirements imposed on eircom, ComReg has ensured the availability of the various services by eircom in the interconnection market and this has enabled OAOs to climb further up the 'ladder of investment'⁴⁶. ComReg therefore seeks to encourage, where possible, efficient infrastructure investment, as this will facilitate effective and sustainable competition. Infrastructure based competition is also more likely to lead to the eventual withdrawal or relaxation of many of the current and proposed regulatory obligations in the interconnection market.

Principles of Price Control

- 6.108 As stated above, a price control can be used to remedy the leverage of upstream market power into potentially competitive downstream retail markets. To prevent such behaviour, ComReg proposes to continue the obligation that interconnection services are offered at cost oriented prices. By ensuring that interconnect prices are cost oriented ComReg ensures that the provision of interconnection is on fair and efficient terms and that costs are soundly derived from appropriate costs and give proper economic signals to operators to guide their investment decisions.
- 6.109 In applying a price control based upon cost orientation, ComReg will need to pay careful attention to the treatment of common costs. Common costs are those costs which are shared across a number of products. Where common costs are shared between products in an SMP market and with products in a non-SMP market, the SMP designated operator may seek to allocate disproportionately the common costs into the SMP market. By so doing the SMP operator would effectively raise rivals costs, and as a result would be able to cross-subsidise the products in the non-SMP market. ComReg will therefore review closely common costs in any application of a cost oriented price control in this market.
- 6.110 The principle that only efficiently incurred costs can be recovered through interconnection charges is one that ComReg believes is of vital importance. eircom at an operational level is free to manage its network, and to route call across the

⁴⁶ See for example ERG Common Position on Remedies, April 2004 available on www.erg.eu.int

network, however it sees fit (subject to the non-discrimination obligation). However, should eircom for its own reasons choose to manage its network in a manner that deviates from the standard of efficient operation then it shall only be allowed to recover those costs that would have been incurred had it operated efficiently.

- 6.111 An example of the application of the principle of efficient operation is Near End Handover of interconnection traffic. Where an OAO has built out points of interconnect to the primary switching level it should be able to take off traffic at this level. In practice a proportion of eircom's primary switches lack the necessary functionality to allow calls to Number Translation Codes to follow such routings and as a result some traffic is unnecessarily routed higher up eircom's network incurring additional costs. These additional costs are inefficient and eircom may only charge the OAOs for the costs that would have been incurred had all traffic that should have been taken off at the primary level had actually been taken off.
- 6.112 Where it is efficient to do so, eircom will incur network overheads associated with the management of the network, for instance the intelligent network or spare capacity for overflow routing. As these costs are overheads associated with managing the entire network they should be recovered across all calls both self supplied and interconnect..
- 6.113 Prior to the implementation of the above price control and in conjunction with the market analysis data considered, ComReg has also taken into account the cost recovery principles commonly applied in order to decide on the level of price control necessary at this stage. The main principles are as follows;
- Cost causation
 - Cost minimisation
 - Distribution of benefits
 - Development of competition
 - Practicality

Cost Causation

- 6.114 Costs should be recovered from those whose actions cause the costs to be incurred at the margin. In the case of the origination rates in Ireland, the FL-LRIC approach is seen as the most appropriate to ensuring that economic efficiency is enhanced by requiring parties to pay for the costs which they actually cause. The type of costing model adopted is a very important aspect in order to achieve this, that is either top down or bottom up.
- 6.115 The principle of cost causation must be applied in a non-discriminatory manner. For example, eircom's own retail arm requires the provision of wholesale services every bit as much as OAOs so that it is appropriate to recover carrier services and interconnect billing costs across all calls utilising the eircom network, including entirely eircom retail calls and not merely those involving interconnected operators..

Cost minimisation

- 6.116 The mechanism for cost recovery should ensure that there are strong incentives to minimise costs. By applying forward looking costs models [rather than historical costs, which may not be a true reflection of the incremental costs caused by OAOs], eircom and other operators have an incentive to ensure that costs are efficient and kept to a minimum.

Distribution of benefits

6.117 Costs should be recovered from the beneficiaries and in such a way as to provide a level playing field for downstream operators.

Development of competition

6.118 The mechanism for cost recovery should not undermine or weaken the pressures for effective competition.

Practicality

6.119 The mechanism for cost recovery needs to be practicable and relatively easy to implement. eircom has, in recent times amended its systems and tailored the pricing models to reflect the FL-LRIC methodology. Where any changes to such systems may be expensive in terms of resources and capital expenditure, ComReg will, before it makes any changes to this mechanism in the future, take account of this expenditure of resources by eircom.

6.120 In light of the apparent lack of competition in the interconnection markets, ComReg, or previously, the ODTR, has, since 1998, published a number of documents on what it considered to be the most appropriate way to achieve cost orientation. One of the most important and pertinent documents published by ComReg in relation to the issue of cost-orientation is Document 99/38⁴⁷. In this document, issues relating to the estimation of FL-LRIC costs were discussed and it was concluded that the adoption of a FL-LRIC model for interconnection was the best way to:

- encourage efficient competition;
- send appropriate signals that promote forward looking investment decisions;
- enable cost recovery by eircom;
- facilitate effective means of interconnection;
- be sufficiently transparent; and
- be non discriminatory and non-preferential.

6.121 ComReg also had to provide guidance on costs allowed in this model by directing eircom that additional costs caused by the provision of interconnection may only be recovered to the extent that they have been both fully justified and identified as being incremental to interconnection and not incurred from internal activities of the organisation. Where this was not justified to the satisfaction of ComReg the costs were not allowed for inclusion in the interconnect rates. Further to this direction, a number of directions have been issued by ComReg, following review of eircom's conveyance rates for origination, termination and transit rates, where the application of costing methodologies, or the inclusion of certain costs, were not seen by ComReg to be appropriate. Up to the time of this review ComReg has reviewed the origination, termination and transit rates together.

6.122 ComReg has, in the past, consulted industry and directed on methodologies to be applied in the RIO model prepared by eircom in areas such as the type of gradients

⁴⁷ Document 99/38; [The Development of Long Run Incremental Costing for Interconnection.](#)

and routing factors to be applied, set up costs to be allowed and over what calls these costs can be recovered, whether there should be two part charging (for call set up and duration), and other areas where consensus was not reached between eircom and ComReg.

Products subject to Price Control

- 6.123 As already stated, eircom is currently required to offer a number of interconnection services and these are published on the eircom website (www.eircomwholesale.ie). ComReg is proposing to continue to mandate the provision by eircom of access to these interconnect origination services. See Annex D for a list of these products.
- 6.124 The services included in this market include both origination charges and regulated retention rates associated with the origination portion of calls delivered to service providers. In the case of regulated retention rates the retention will recover both the costs of the network elements used and the costs associated with collecting the retail revenue such as billing costs and bad debt.
- 6.125 In June 2002, following an industry consultation, ComReg mandated the introduction of Near End Handover (NEHO) solution for number translation codes (“NTCs”). This was introduced as an alternative choice for interconnection operators thus enabling such operators to benefit from points of interconnect at a primary level. Previously all NTC calls are handed over at the tertiary level in the eircom network. ComReg’s reasoning for introducing NEHO was that it represented the best use of infrastructure rollout as OLOs would no longer have to pay for network elements they do not require and it encouraged more efficient network based routing as this will enable OLOs to benefit from points of interconnect at primary level.
- 6.126 Currently only one operator avails of NEHO. ComReg set rates for this operator on a quarterly basis based on information supplied by eircom. The rates for this service comprise of the conveyance costs related to the specific points of interconnection and average call holding times of that operator. The existing industry average rates will continue to apply to other operators which have not requested NEHO and continue to collect calls at the tertiary switches. These rates apply only to calls originated by eircom and do not apply to transit traffic to this Operator.

Q. 37. Do you agree that eircom should continue to provide Near End Handover? How often should these rates be reviewed? Please provide detailed comments.

- 6.127 In addition to standard per call and per minute origination charges eircom is obliged to offer a flat rate internet access call origination product (FRIACO). The costs associated with originating FRIACO calls are not recovered on a per call and per minute basis, but are charged on a capacity basis and the costs are recovered on an annualised basis per switch port.

Q. 38. Do you agree with the continued provision by eircom of call origination services charged on a capacity basis, i.e. FRIACO? If not please provide supporting explanation for your conclusion.

- 6.128 It would not be considered appropriate to separate certain wholesale products when reviewing call origination costs, rather it is considered necessary to apply a price control on all interconnection wholesale services in order to prevent price squeezes or excessive pricing. ComReg believes that any new services introduced into the call origination market subsequent to this market review will be covered by the same pricing principles. This is because new services in the same markets would be expected to be subject to the same competitive conditions as existing services.
- 6.129 The payphone access charge (PAC) also falls within this market. This is a supplemental charge for calls originating from payphones. For standard calls the costs associated with the local access network are recovered through the line rental, and therefore local access network costs are excluded from the computation of origination prices. In the special case of calls originating from payphones there is no associated line rental, and so the local access network costs incurred to support payphones would go un-recovered without this supplemental charge.
- 6.130 In order to allow for the provision of the facility to call freephone numbers from payphones it has been necessary to impose a charge on operators for the use of the actual payphones through the PAC to finance the incremental cost of the equipment and other costs involved in maintaining them in addition to normal interconnect charges.
- 6.131 Currently there is a special pricing mechanism used to arrive at the PAC which is based in ComReg Decision D15/02.

Q. 39. Do you think that the current charging mechanism for PAC is still appropriate? If not please provide details with your answer.

Form of Price Control

- 6.132 ComReg has not considered it necessary, up to now, to regulate eircom's origination rates by way of a price control in order to ensure that the competition problems did not occur, and that excessive pricing did not feature. ComReg, commenced the regulation of eircom in the interconnect market in 1998. Since this time there has been a number of consultations and directions made in relation to the costing principles applied in the calculation of the interconnect rates. The need for these interventions arose as there has been insufficient competition in the market to prevent excessive pricing. Heretofore, costs have been calculated using methods that were deemed by ComReg to be appropriate to the circumstances and which in ComReg's view would promote efficiency and sustainable competition and maximise consumer benefits.
- 6.133 In order to achieve a high level of assurance that interconnect rates are cost oriented it is necessary to apply the most appropriate methodology that will achieve this. The methods that could be applied include using fully distributed historical

costs, marginal costs or forward looking long run incremental costs using either a top down or bottom up approach.

- 6.134 The application of the forward looking long run incremental cost (FL-LRIC) method is preferred to other cost methods, such as fully distributed historical costs, as it leads to a set of prices that reflect the real resource costs taken into consideration when investment decisions are made by operators. The application of this method has been used in the past and is commonly seen in other countries as the most appropriate to achieve the desired results.
- 6.135 As set out in Document 00/31⁴⁸ ComReg will review the generality of all wholesale services provided by the eircom in the RIO on an annual basis, this includes those listed in Annex D. In this list there are a range of services which include additional costs to Core Network call origination charges. Where appropriate it may be possible to use historic costs as a reasonable proxy for forward looking costs.
- 6.136 While ComReg believes that the obligation to provide wholesale call origination services priced at LRIC cost remains justified and appropriate given the impracticality of replicating the assets underpinning the service, ComReg has concerns that the current method of enforcing compliance with this obligation is less than optimal. Under current arrangements eircom make pricing submissions to ComReg on an annual basis derived from their top-down LRIC costs. Top-down LRIC models rely on underlying accounting information which by its nature is backward looking. As a result when ComReg approves a pricing submission for the current period it can only do so on interim basis as the submission is relying on forecasts, and rates do not become finalised until actual volume and cost data is available. While this approach ensures that prices are rigorously cost oriented it also creates uncertainty in the market and imposes a heavy compliance burden on eircom.
- 6.137 ComReg has previously consulted on the possibility of moving from an annual review regime to a multi-year wholesale price cap regime. This would both increase certainty for the industry and avoid overly intrusive and bureaucratic regulation. In addition a price cap regime provides very clear incentives to eircom to minimise costs, if it can reduce its unit costs below the level expected when the cap is set then it retains increased profits, at least for the period until the cap is reviewed. The responses received in prior consultations in relation to interconnection indicated that this approach had broad support within the industry, although many details relating to how the price cap will be implemented in detail will need to be resolved.
- 6.138 ComReg believes that moving to a wholesale price cap regime within the timeframe of this review would be desirable, but acknowledges that the annual review regime may have to continue in the short term.

⁴⁸ Document 00/31;eircom's Reference Interconnect Offer- Decision Notice D7/00 & Report on the Consultation.

- Q. 40. ComReg proposes to continue with the application of a FL-LRIC price control for call origination conveyance rates until such time as an alternative method is arrived at. Do you agree with this position? Do you believe there are alternative price control methods that have not been considered by ComReg which are less onerous but equally effective as FL-LRIC? Please support your response with economic analysis.**
- Q. 41. Do you agree that eircom should be required to provide any new interconnect origination services subject to the same price control obligations as existing services? Please detail your response.**
- Q. 42. Do you agree that ComReg should consider moving towards the application of an alternative price control such as setting rates in line with RPI movements which may include an adjustment up or down over a set period for call origination conveyance rates? Please provide definitive explanations with your answer.**

Accounting Separation

- 6.139 Accounting Separation will help disclose possible market failures and provide evidence in relevant markets of the presence or absence of discrimination and price squeeze. It will make visible the wholesale prices and internal transfer prices of a dominant operator's products and services. It can also provide ComReg with relevant data which will allow it to perform its duties to ensure prices are not set at an excessive level and provide greater certainty about the cost base.
- 6.140 An obligation of non-discrimination can require, inter alia, the imposition of financial reporting regimes in order to monitor eircom's compliance with such an obligation. With regard to the proposed designation of eircom as having SMP in this market and the proposal to impose an obligation of non-discrimination as a means to remedy the competition problems discussed earlier, ComReg believes it would also be appropriate to impose an obligation of accounting separation upon eircom in this market.
- 6.141 ComReg is proposing that eircom as an SMP operator should have an obligation not to unduly discriminate. As a vertically integrated undertaking, it may have an incentive to provide wholesale services on terms and conditions that discriminate in favour of its own retail activities in such a way that may have a material effect on competition. The obligation of accounting separation will support ComReg in its monitoring of eircom's behaviour with regard to non-discrimination by clearly reporting its wholesale prices and internal transfer prices for its services.
- 6.142 ComReg proposes to implement the accounting separation obligation on a service and/or product basis. ComReg believes it is not sufficient to implement such an obligation at a market level as it is important to discourage possible cross-subsidisation of pricing at a service level. Operators dominant in relevant markets may provide services in a number of markets and may divide the activities required

to supply these services among a number of business units. The division of activities relevant to NRAs for regulatory purposes is the division of services, and the activities which underlie them, between relevant markets. These relevant markets may be a regulated market designated with SMP or a non SMP designated market. Therefore NRAs need to be able to ascertain to what extent services in non SMP markets may impact on services supplied in SMP markets. In order to determine the information required for regulatory purposes, it is necessary to explore the nature of the costs incurred by activities undertaken in the course of supplying a service (or combination of services). If ComReg were to impose accounting separation at the market level, it would not be able to identify whether products and services are being provided on a non discriminatory basis.

- 6.143 As discussed earlier, in deciding upon the imposition of obligations to support the remedy of competition problems, ComReg must ensure that the obligation is based on the nature of the problem identified, justifiable and proportionate in the light of the objectives laid down in section 12 of the Communications Regulation Act 2002. In this regard, the accounting separation obligation is designed to help provide evidence from eircom which may demonstrate the presence or absence of price discrimination. In this regard, ComReg believes the imposition of an obligation of accounting separation upon eircom would be justifiable and based upon the nature of the problem identified.
- 6.144 If ComReg were to withdraw this obligation, it would be difficult for it to effectively monitor compliance with any obligation of non-discrimination that may be imposed, or of having any information on margins in the retail business. ComReg does not consider that this obligation will be time consuming and impose a heavy burden on eircom, as given the size of eircom, it would already have management accounting systems in place to support internal business decision-making.
- 6.145 ComReg proposes to consult further on the detailed implementation of accounting separation under the new framework. In the interim, ComReg is proposing that eircom be required to maintain the existing level of accounting separation, until such time as any further consultations are completed.

<p>Q. 43. Do you believe eircom should have an obligation of accounting separation in the call origination market? Please elaborate on your answer.</p>
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Q. 44. Do you agree that where an obligation for Accounting Separation or Cost Orientation has been proposed in the call origination market on an SMP operator that they should have an obligation to maintain the appropriate Cost Accounting Systems that will fulfil these obligations. (See the Cost Accounting Systems section later in this paper for further discussion in relation to these systems.) Please detail your response.

The Call Termination Markets

- 6.146 In many cases competing operators will need to purchase call termination services from other operators to enable call completion. In Ireland, as shown in the section on Market Analysis, termination in the fixed market occurs largely on the eircom network and this is expected to remain the case over the lifetime of this review. The asymmetry in call termination traffic patterns is due to the history of eircom having been an exclusive monopoly. Hence, eircom is by far the largest network and handles most of the traffic.
- 6.147 It has been argued in this paper that every operator offering fixed termination to end-user numbers is regarded as having SMP. This is because of the widespread use of the calling party pays principle, which results in the called party being much less concerned about the costs of termination as these are passed onto the calling party. For this reason, any operator offering termination services to subscribers on end-user numbers directly connected to its network is regarded as a monopolist in the termination market. This suggests that competition problems will be closely associated with the possible abuse of such monopoly power.

Competition problems in the call termination markets

- 6.148 As discussed above, where the majority of traffic flows terminate on eircom's network, eircom could have a strong incentive to foreclose downstream retail markets by denying access to vital termination services needed by other competing operators to enable a directly connected subscriber on another network to make calls to anyone connected on eircom's network. On the other hand, smaller operators have little incentive to deny access to the larger network. If a small network were to deny access to a larger network, the incentive for end-users to join the smaller network would be considerably reduced as the proportion of subscribers that could reach the party would be relatively low. This problem would appear to be somewhat offset by a general obligation to interconnect.
- 6.149 However, as discussed in the market analysis above, eircom is currently significantly larger than its rivals. OAOs purchase the vast majority of their fixed end user termination services from eircom, while the vast majority of end-user traffic terminating on OAO networks originates on the eircom network. This puts eircom in a unique bargaining position in the purchase and sale of termination services for calls to end-users. While some of this bargaining power could be off-set by a general obligation to interconnect, smaller operators would still be far more sensitive to eircom's termination rates than vice versa. Thus, it is clear that further regulation of eircom termination rates (in addition to a general obligation to interconnect)

continues to be necessary to protect OAOs from the exercise of such bargaining power.

- 6.150 However, as described previously, OAOs have maintained the termination rates they charge to eircom higher than the eircom regulated rate, which could suggest that the smaller operators are capable of exercising some bargaining power in the situation where remedies are imposed on eircom only. In order to prevent any potential abuse of such power, it would be necessary to impose some level of regulation on OAO termination rates also. However, in determining the level of remedies to impose, ComReg believes that it would be appropriate to take into account the requirement for proportionality and the respective bargaining positions of the operators in this market..
- 6.151 ComReg has discussed the potential problem of denial of access; however, the terms and conditions governing access are also important aspects that influence the effectiveness of competition in termination markets and adjacent downstream retail markets. Where each operator providing call termination services to end-user numbers has SMP, there is a real prospect that excessive prices may arise. Furthermore, the relative size of undertakings may also lead to unfair discrimination in the form of dissimilar terms applied by larger operators on smaller operators.
- 6.152 To date ComReg has only regulated eircom's call termination services, via a price control in accordance with a FL-LRIC methodology which also necessitates accounting separation. ComReg is considering whether it would be appropriate and proportionate to apply a similar suite of obligations on every operator that has SMP for the termination of calls to end users on their own network. ComReg is considering this issue as the implications of extending all regulations to all operators in the termination market are considerable. For example, to comply with accounting separation requirements would impose a considerable burden on many OAOs.
- 6.153 ComReg recognises that the setting of excessive termination rates by an operator designated with SMP in the market for call termination for calls to end-user numbers is possible. However, ComReg is required to take into account the requirement for proportionality in its application of remedies and the respective bargaining positions of the operators in this market.

Q. 45. When seeking to apply a remedy on SMP operators (other than eircom) in the termination of calls to end users, please give your views as to the most appropriate and proportionate remedy to apply, for example cost orientation, reciprocity, price control, commercial negotiations, etc? Please elaborate and justify your answer.

- 6.154 ComReg recognises that the imposition of obligations which seek to address or deal with problems related to the denial of access and the price of access, is not, on its own, likely to deal effectively with other problems, such as competition problems of a non-price nature. Given the imbalance in termination traffic flows, non-price abuses would be more likely to be undertaken by eircom. These include discriminatory use of, or withholding of information; delaying tactics, and the

application of undue requirements in interconnectComReg is able to point to a number of difficulties in this area over recent years, including:

- the withholding by eircom from OAOs of information on points of interconnect essential for OAOs to plan their business case. (this information was only provided following intervention by ComReg); and
- the intervention by ComReg to amend terms and conditions set by eircom in interconnection contracts because ComReg considered certain of the terms and conditions to represent undue contractual requirements.

6.155 Another potential competition problem which ComReg is required to safeguard against is the application of a price squeeze (or margin squeeze) by an SMP operator. Moreover, to guard against the application of discriminatory pricing practices, especially by eircom, where the aim is to disadvantage competing operators.

Appropriate Obligations: call termination markets for calls to end users

OAO and eircom

- 6.156 As mentioned above, ComReg propose to designate all operators in the call termination market for calls to end-users, as having SMP (the list of terminating operators it is proposed to designate as having with SMP is set out in Annex C).
- 6.157 The European Commission Guidelines on Market Analysis and SMP state that where an NRA finds an operator with SMP, it is obliged to impose one or more regulatory obligations outlined in the Access Directive, taking into account the principle of proportionality and other factors outlined in the Access Directive. Thus, ComReg is under an obligation to impose appropriate SMP access obligations on all operators which are designated as having SMP in this market.
- 6.158 Furthermore, when imposing obligations ComReg must ensure, inter alia, that the obligations are proportionate and based on the nature of the problems identified. Where possible, the least burdensome and effective set of remedies should be selected.
- 6.159 In the following sections, ComReg considers the remedies it proposes as appropriate to apply to SMP operators defined as OAOs, before considering the remedies it proposes to be appropriate to apply to eircom.

Proposals for Remedies for OAOs in the call termination market

Transparency

- 6.160 ComReg proposes that the OAOs listed in Annex C be required, in accordance with Regulation 10 of the *Access Regulations*, to make public, in detail, the termination rates they apply to all other operators in this market. This would take the form of requiring the publication of rates on a publicly accessible website. ComReg does not regard this to be an onerous burden and by making transparent prices that apply in the market, it will make it easier for customers to make informed choices. Furthermore, the disclosure of termination rates will also enable ComReg to monitor more easily the state of competition in the call termination market.
- 6.161 For most of the OAOs listed in Annex C, the imposition of this obligation would only result in them being required to publish the termination charges that they levy on eircom, as traffic is only received by them from the eircom network. However, in

some cases, an OAO listed in Annex C, might be required to publish other termination rates when it is directly interconnected with an operator other than eircom.

- 6.162 The benefit of a transparency obligation requiring the publication of prices and proposed changes to those prices in advance of those changes taking place, is that it would assist in ensuring transparency for purchasers of wholesale termination services and provide advance warning of changes in charges to such purchasers, who may need to restructure their retail prices in response to tariff changes at the wholesale level.
- 6.163 Furthermore, ComReg believes that the imposition of a transparency obligation would enable negotiations between operators to be undertaken more speedily and reduce potential complaints.
- 6.164 With regard to the costs that may be incurred as a result of the imposition of a transparency remedy, ComReg believes that these are few and that the benefits of a transparency remedy far outweigh any such costs. Indeed, by only requiring the OAOs to publish their prices on their websites the cost is minimised. Thus, ComReg believes that a transparency obligation on SMP operators is appropriate for this market.

Non Discrimination

- 6.165 It is proposed that every OAO in this market be required, in accordance with Regulation 11 of the Access Regulations, to apply similar terms and conditions on interconnecting operators where they avail of call termination services having equivalent characteristics.

Access to and use of specific network facilities

- 6.166 In light of ComReg's consideration of the competition problems, ComReg is of the opinion that it would be unlikely for a terminating OAO to refuse to deal or deny access to its termination services from a requesting operator. Access to the eircom network is essential to an OAO to offer a viable retail service, given that over 95% of calls that terminate on OAO networks originate on eircom's network. Thus, ComReg currently believes that it would not be appropriate to impose the obligation of access pursuant to Regulation 13 of the Access Regulations on the OAOs.
- 6.167 However, ComReg notes that OAOs pursuant to Regulation 5 of the *Access Regulations* have an obligation to negotiate interconnection for the purpose of providing publicly available electronic communications services when requested to do so by another operator in order to ensure provision and interoperability of services throughout the European Community. It is obviously beneficial if such arrangements are concluded efficiently and promptly, using commercial negotiation where at all feasible. ComReg considers that pursuant to Regulation 13 (2) (b) of the *Access Regulations*, this process could be improved by requiring all parties to an interconnection agreement to negotiate in good faith.

Accounting Separation

6.168 Considering the competition problems and the principle of proportionality, ComReg is of the view that it would not be necessary to impose an obligation of accounting separation on OAOs.

Q. 46. Do you agree with ComReg that transparency is desirable and proportionate and therefore an appropriate obligation to impose on OAOs in this market? If no, please elaborate.

Q. 47. Do you agree that in addition to transparency, it is necessary to apply a non-discrimination obligation in this market? If no, please elaborate.

Q. 48. Do you agree with ComReg's proposal not to impose an obligation of accounting separation on OAOs operational in this market?

Proposals for remedies for eircom

Transparency

6.169 As stated in the market definition for Call Origination, Section 3; it may be argued that transparency is the least intrusive and least burdensome obligation under the *Access Regulations*. Transparency would allow ComReg and OAOs to observe price and non-price terms and conditions for eircom wholesale end-user call termination products. However, on its own transparency could not guard against the setting of excessive prices, the imposition of undue requirements, and the application of discriminatory practices by eircom. Furthermore, transparency alone would not be able to tackle problems of delay, especially in relation to new products and to products demanded by OAOs which are not demanded or used by eircom. However, transparency would make clearer whether discriminatory practices are applied by the SMP operator.

6.170 ComReg therefore believes that transparency, while having the desirable property of being 'light-handed', is insufficient on its own for dealing with the competition problems identified in this market. As such, ComReg believes that transparency is a necessary obligation to make effective other obligations in this market. This view is considered further in the discussion of the other obligations that may be applied on eircom by ComReg in the wholesale end-user call termination market.

Q. 49. Do you agree that on its own the application of a transparency obligation alone would not remedy the problems identified in this market? Do you agree that transparency, and in particular the requirement to make public interconnection terms and conditions, is a necessary remedy to problems actual and prospective in this market? Please detail your response.

- 6.171 Regulation 10 of the Access Regulations provides for the imposition of the type of transparency obligations that can be imposed. In that regard, ComReg considers it would be appropriate to require eircom to publish a reference offer for call termination services that is sufficiently unbundled to ensure that undertakings are not required to pay for facilities which are not necessary for the service requested. This would include a description of the relevant offerings broken down into components according to market needs; and a description of the associated terms and conditions, including prices.
- 6.172 ComReg considers it would be further justified to require eircom to publish a reference offer for termination services given that all OAOs, either directly or indirectly, have to purchase call termination services from eircom.
- 6.173 In line with the proposal to impose an access obligation on eircom not to withdraw access to facilities already granted, ComReg believes that eircom should be required to continue to publish a Reference Offer containing details of access to facilities already granted. ComReg considers that this obligation would be met by the continued publication of the eircom end-user call termination service schedule and prices contained in the eircom Core RIO Document Version 3.11 and eircom RIO Price List Version 1.36.

Q. 50. Do you agree that eircom should be required to publish a Reference Offer containing details of access to facilities already granted? Please detail your response.

- 6.174 In addition, ComReg considers that eircom should be required to publish (in relation to the access obligation it is proposed to impose in accordance with Regulation 13 (2) (c) of the *Access Regulations*) specified information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and price which is necessary for the provision of new and existing end user call termination services. ComReg believes that this information should be published as part of the Reference Offer.
- 6.175 ComReg considers that this obligation would be met by the continued publication of the relevant facilities in accordance with the terms, conditions and specifications contained in the Main body clauses, Annex A definitions, Billing and Payments annex, located in the eircom Core RIO Document Version 3.11, Billing forms, Network Plan, Technical Manual, CLI CoP, Call Origination and Termination Routing Scheme, Non Disclosure Agreement as published as stand alone documents

on eircom's wholesale website and the prices contained in the eircom RIO Price List Version 1.36.

Q. 51. Do you agree that eircom should publish specified information which supports call termination services? Please detail your response.

6.176 ComReg is currently of the opinion that eircom should be required to provide and publish appropriate manuals, order forms and processes for new and existing services, the details of which would be determined on a case by case basis.

Q. 52. Do you agree that eircom should be required to publish appropriate manuals and documentation for new and existing Call Termination services? Please detail your response.

6.177 ComReg proposes that eircom should be required to publish the Reference Offer for end-user call termination on its wholesale website so as to allow for easy and predictable access to this by interested parties.

Q. 53. Do you agree that eircom should publish a Reference Offer for call termination services on its wholesale website? Please detail your response.

6.178 A number of processes currently apply to the publication of eircom's RIO- these include the republication of the RIO when any price changes have been approved by ComReg, a text process that was mandated in D10/02, a process for the introduction of new interconnection and associated retail products, and the application of version control to RIO documents. ComReg believes that these obligations should be maintained and should apply to all the documents which apply to eircom call termination services.

Q. 54. Do you agree that the current processes that apply to the publication of eircom's RIO should be maintained for call termination services? Please detail your response.

6.179 Pursuant to Regulation 10 (1) of the *Access Regulations*, ComReg may, if eircom is designated as having SMP, impose on eircom obligations to ensure transparency in relation to interconnection, access or both interconnection and access, requiring eircom to make public specified information.

Q. 55. Is there an additional information eircom should provide to ComReg or industry or both in relation to products and services provided in the RIO? Please support your answer with details.

- 6.180 ComReg believes it will also be necessary to impose obligations of transparency in support of any accounting separation obligation, as this would allow the calculation of costs and prices (i.e. internal price transfers) to be rendered visible. This would also allow ComReg to monitor compliance with any non-discrimination obligations that may be imposed and help address competition problems relating to cross subsidisation, price discrimination and the application of price squeezes.
- 6.181 As a further enhancement to the level of transparency in the wholesale call termination market ComReg believes that eircom should provide itemised billing to other authorised operators. The introduction of this would allow for a level of granularity that would enable operators to be in a position to reconcile amounts billed on a wholesale level to that billed on a retail level and ensure there are no discrepancies. Currently, this process is being improved on an ad hoc basis and mainly on the request of other operators who encounter difficulty in reconciling bills from eircom to their in house systems. It is general practice in industry that prior to payment of any bill a full breakdown of what the bill relates to is required by the paying party.

Q. 56. Do you agree that eircom should be required to provide itemised billing? If you agree please indicate in what format this should be provided in order to provide the level of detail required to reconcile bills to a satisfactory level i.e. soft copy versus hard copy, whether it should be monthly/quarterly.

Non- discrimination

- 6.182 ComReg believes the following non-discrimination obligations should be imposed on eircom to prevent additional competition problems such as quality discrimination and undue use of information about competitors which the transparency obligation would not prevent. Without non-discrimination, it would be difficult to safeguard against foreclosure practices. Furthermore, non-discrimination is an essential complement to the transparency and access obligations (on the latter see below)
- 6.183 The application of a non-discrimination obligation would require eircom to offer equivalent conditions in equivalent circumstances to other undertakings providing equivalent services and require eircom to provide services and information to others under the same conditions and of the same quality as it provides for its own services or those of its subsidiaries or partners.
- 6.184 In particular ComReg considers that eircom must provide information and services to alternative operators in timescales, on a basis, and of a quality, which are at least as good as those provided to eircom's retail arm and associates.

Q. 57. Do you agree that eircom should also be required to provide call termination information and services on a non-discriminatory basis to its retail arm and alternative operators? Please detail your response.

6.185 It is important that information gained by eircom as a result of their provision of call termination services to another operator is not used by eircom's downstream arms in any manner. In other words ComReg believes that eircom's downstream arms should not have privileged access to eircom wholesale.

Q. 58. Do you agree that eircom's downstream arms should have the same access to eircom wholesale as alternative operators? Please detail your response.

6.186 Furthermore ComReg proposes that eircom should be required to apply a standard process for the development and introduction of new call termination services and elements, including standard documentation and timescales.

Q. 59. Do you agree that eircom should be required to apply a standard process for the development and introduction of new call termination services and elements? Please detail your response.

6.187 In addition to the obligation of non-discrimination, ComReg considers that it will also be necessary to impose obligations of transparency and accounting separation in order to monitor the non discrimination obligation and address the price competition problems identified earlier. The afore mentioned obligations will enable ComReg to demonstrate the provision of services to other operators under the same conditions (i.e. price) as eircom provides to its retail arm and thus address the possible price problems of cross subsidisation, price discrimination and margin squeezes. ComReg considers that part of the effectiveness of the transparency and non-discrimination obligations is reliant on the introduction of obligation of accounting separation to facilitate the verification of compliance. ComReg proposes to consult further on the detailed implementation of accounting separation and pricing non discrimination issues under the new framework.

Access to and use of specific network facilities

6.188 The transparency and non-discrimination obligations discussed above are necessary but insufficient on their own for dealing with the entire range of competition problems in this market. A key competition concern in the eircom wholesale end-user call termination market relates to the denial of access for facilities or the application of excessive prices by eircom. ComReg is of the view that such problems would be very real in this market unless a remedy is effected that tackles specifically access issues.

- 6.189 ComReg's analysis of the competition problems suggests strongly that wholesale access obligations are necessary so as to promote more effective competition in retail markets. On its own it is highly unlikely that eircom would offer sufficient wholesale products on reasonable terms through commercial negotiations with OAOs. ComReg is of the view that without appropriate access obligations eircom would have an incentive to apply unreasonable contractual terms on other operators, and exercise non-price forms of discrimination that would likely delay the offering of access to other operators. Such behaviour would be construed as denial of access and would lead to the foreclosure of sustainable competition
- 6.190 It is proposed to designate eircom with SMP in the provision of its own network call termination services for calls to end-users, and in the absence of regulation, ComReg is concerned that there may be a risk that it could leverage its market power from the wholesale market into the potentially competitive retail market. In addition, it is not technically possible to terminate a call on another operator's network.
- 6.191 ComReg has further considered whether competition problems in the downstream voice telephony market could be overcome by imposing the less burdensome obligation of non-discrimination on eircom in the call termination market on its own network. A non-discrimination obligation can ensure that a vertically integrated SMP operator is prevented from acting in such a way as to have a material adverse effect on competition. In the absence of a non-discrimination obligation SMP operators may offer different terms and conditions to different purchasers of their voice call termination services which may have potential anti competitive effects.
- 6.192 ComReg considers that a non discrimination obligation may be sufficient in all cases as eircom retail will always avail of the same services that another operator may require.
- 6.193 Therefore, ComReg believes that there is a strong argument for stating that a non-discrimination obligation is the appropriate remedy for this market. ComReg has formed this opinion because it believes that it would be unlikely given the characteristics of this market for new call termination services or variants of the current service to be requested and developed on eircom's network.
- 6.194 However, ComReg has considered the effect of it opting to impose an obligation of non-discrimination, but deciding not to impose an access obligation on eircom and it is currently of the view that this could mean that ComReg would not be in a position to require eircom to negotiate in good faith with requesting undertakings, or to require eircom to continue to provide existing services on existing terms and conditions in accordance with Regulation 13 of the Access Regulations. Furthermore, it would mean that ComReg would not be able to impose a requirement on eircom, in accordance with Regulations 13 of the Access Regulations, to provide call termination services on terms and conditions which are fair, reasonable and timely.
- 6.195 For these reasons and given the nature of the competition problems which might arise in this market, ComReg has had to come to the conclusion that an access obligation is necessary.

Q. 60. Do you agree that an access obligation for Call Termination services should be imposed on eircom pursuant to Regulation 13? Please provide details in support of your answer

6.196 ComReg proposes that eircom should be required, Pursuant to Regulation 13 (2) (i) of the *Access Regulations*, to interconnect networks or network facilities. ComReg is of the view that the imposition of this obligation is necessary to maintain eircom's obligation to interconnect with existing and new OAOs.

Q. 61. Do you agree with ComReg's proposal to require eircom to interconnect networks or network facilities? Please detail your response.

6.197 Pursuant to Regulation 13 (2) (c) of the *Access Regulations*, ComReg proposes that eircom should have an obligation not to withdraw access to facilities already granted. This is necessary to ensure that OAOs have the certainty to provide retail services to the marketplace and so compete with eircom. ComReg considers that this obligation would be met by the continued offering of the eircom call termination service schedule and prices contained in the eircom Core RIO Document Version 3.11 and eircom RIO Price List Version 1.36.

6.198 There are circumstances where it may be desirable to withdraw access to facilities, for example when a facility is no longer needed and it is an undue burden on eircom to maintain it. ComReg, therefore, proposes to qualify the obligation on eircom not to withdraw access to facilities already granted, so that eircom could withdraw such access provided it obtained prior ComReg approval which would only be granted following public consultation.

Q. 62. Do you agree that eircom should be required not to withdraw access to facilities already granted, unless it obtains the prior approval of ComReg to withdraw such access and with such approval to be granted by ComReg following public consultation? Please detail your response.

6.199 Pursuant to Regulation 13(2) (c) and 13 (3) of the *Access Regulations*, ComReg considers that eircom should be required to continue to provide specified information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices which is necessary for the provision of existing end-user call termination services. ComReg considers that this obligation would be met by the continued offering of the relevant facilities in accordance with the terms, conditions and specifications contained in the Main body clauses, Annex A definitions, Billing and Payments annex, located in the eircom Core RIO Document Version 3.11, Billing forms, Network Plan, Technical Manual, CLI CoP, Call Origination and Termination Routing Scheme,

Non Disclosure Agreement as published as stand alone documents on eircom's wholesale website and the prices contained in the eircom RIO Price List Version 1.36.

Q. 63. Do you agree with ComReg's proposal to require eircom to provide specified information which supports existing call termination services? Please detail your response.

6.200 ComReg has difficulty in foreseeing future end-user call termination products being developed, given the current characteristics of this market. Rather than foreclose such a possible development ComReg considers that eircom should have an obligation to meet reasonable requests for access from OAOs pursuant to Regulation 13 (1) of the *Access Regulations*, for such products. Any such request will be reviewed in the context of Regulation 13 (4) of the *Access Regulations*. However at this stage ComReg wishes to note that imposition of any access remedy through Regulation 13 will be granted only when that remedy represents the only way to compete effectively.

Q. 64. Do you agree that eircom should have an obligation to meet reasonable requests for access? Please detail your response.

6.201 Additionally, pursuant to Regulation 13 (2) (b) of the *Access Regulations*, ComReg also believes that eircom should have the obligation to negotiate in good faith with undertakings requesting access. This is necessary to ensure that OAOs can approach eircom and ensure that their requests for new or amended products are treated promptly and appropriately.

6.202 Pursuant to Regulation 13 (3) of the *Access Regulations*, ComReg considers that eircom's call termination services must be provided on terms and conditions which are fair, reasonable and timely. In addition, ComReg believes that the terms and conditions should be supported by Service Level Agreements and compensation payments to aid incentive compatibility.

Q. 65. Do you agree that eircom should be required to provide call termination services on terms which are fair, reasonable and timely? In addition do you agree with ComReg's proposal that these terms and conditions should be supported by Service Level Agreements and compensation payments? Please detail any your response.

6.203 ComReg proposes that eircom should be required to provide an unbundled call termination service to ensure that undertakings are not required to pay for facilities

which are not necessary for the service requested. The level of unbundling should be the same as that offered at the time to its retail division or subsidiaries.

Q. 66. Do you agree that eircom should be required to provide an unbundled call termination services as part of its access obligation? Please detail your response.

6.204 ComReg proposes that eircom should be required to provide access to call termination services to competitors at an equivalent standard and at an equivalent time as the retail arm.

6.205 Furthermore, ComReg proposes that eircom should be required to provide competitors with information necessary for access to its call termination services an equivalent standard and an equivalent time as it does for its retail arm.

Q. 67. Do you agree that eircom should provide access to and information necessary for access to call termination services to competitors at equivalent times and standards as it provides to its retail arm? Please detail your response.

6.206 When products are mandated ComReg believes that there may be an incentive for eircom to limit access or make access more difficult. It is obviously necessary for OAOs to have open access to technical interfaces, protocols, and OSS such as is necessary for them to take up the mandated product and allow them to compete with eircom at the retail level in winning customers. Therefore, pursuant to Regulation 13 (2) (e) ComReg also considers it appropriate that, insofar as it is required to avail of access, eircom should also grant open access to technical interfaces, protocols, or other key technologies.

Q. 68. Do you agree that eircom should be required to grant open access to technical interfaces, protocols, or other key technologies and should also be required to provide access to such OSS or similar software necessary to ensure fair competition in the provision of services? Please detail your response.

Price control and Cost Accounting

6.207 ComReg does not believe that it can rely on ex-post measure of regulation of the end-user termination market. In the absence of regulation ComReg believes that eircom could leverage its dominance to distort competition in other markets. As well as this, it is not technically feasible to terminate a call over another network provider's network. In the interests of enhancing competition and the welfare of retail customers, price control is considered a necessary obligation to prevent the potential competition problems as described above.

- 6.208 A price control could be required particularly if there are obvious fluctuations between termination rates charges by other operators which are a lot lower than the termination rates of the eircom. If this were to happen it would be quite possible that the rates being charged by the eircom are excessive.
- 6.209 Where a price control is deemed necessary as part of an overall remedy, ComReg will commence its analysis of the appropriateness of the price control by examining whether a wholesale price control alone would be sufficient to promote effective competition and be in the best interest of end-users.
- 6.210 In the absence of a price control on eircom and if excessive prices were then charged, this would severely impede competition in downstream markets as other operators would then have to raise their retail rates in order to cover the cost of termination. In the current termination market competition does not provide sufficient pricing constraints to ensure that prices charged reflect costs and are not excessive.
- 6.211 Similar to the call origination market, where ComReg considers a price control remedy necessary, this may take the form of either requiring prices to be reasonable or requiring prices to be cost oriented.
- 6.212 The burden of proof to demonstrate that charges are derived from costs including a reasonable rate of return on investment lies with eircom at this stage as it has been found to have dominance in the market for call termination for calls to end-users. It is then up to the regulator to assess the reasonableness of costs demonstrated and accept or require adjustment where necessary.
- 6.213 One of the most important factors to take into account when deciding on assessing the cost orientation of costs is to ensure that the rate of return allowed to the dominant operator and the final rates set for the market allow for future investment in the network, be it the existing one or the roll out of new networks by other operators to further enhance competition.
- 6.214 By imposing a price control obligation ComReg would hope that this would introduce benefits by ensuring that eircom has incentives to increase efficiency and thus increasing the chances of allowing for effective competition.

Principles of Price Control

- 6.215 As stated above, a price control obligation can be used to remedy the leverage of upstream market power into potentially competitive downstream retail markets. To prevent such behaviour, ComReg proposes to continue the obligation that interconnection services are offered at cost oriented prices. By ensuring that interconnect prices are cost oriented ComReg hopes to ensure that the provision of interconnection is on fair and efficient terms and that costs are soundly derived from appropriate inputs and give proper economic signals to operators to guide their investment decisions.
- 6.216 In applying a price control based upon cost orientation, ComReg will need to pay careful attention to the treatment of common costs. Common costs are those costs which are shared across a number of products. Where common costs are shared between products in an SMP market and with products in a non-SMP market, the SMP designated operator may seek to allocate disproportionately the common costs into the SMP market. By so doing the SMP operator would effectively raise rivals costs, and as a result would be able to cross-subsidise the products in the non-SMP

market. ComReg will therefore review closely common costs in any application of a cost oriented price control in this market.

- 6.217 The principle that only efficiently incurred costs can be recovered through interconnection charges is one that ComReg believes is of vital importance. eircom at an operational level is free to manage its network, and to route call across the network, however it sees fit (subject to the non-discrimination obligation). However, should eircom for its own reasons choose to manage its network in a manner that deviates from the standard of efficient operation, then it shall only be allowed to recover those costs that would have been incurred had it operated efficiently.
- 6.218 Where it is efficient to do so, eircom will incur network overheads associated with the management of the network, for instance the intelligent network platform or spare capacity for overflow routing. As these costs are overheads associated with managing the entire network these costs should be recovered across all calls and interconnect calls should pick up a fair proportion of these costs.
- 6.219 In addition to considering the implementation of the above price control obligation and in conjunction with the market analysis data considered, ComReg has also taken into account the cost recovery principles commonly applied in order to decide on the level of price control necessary at this stage. As already outline in call origination the main principles are as follows;
- Cost causation
 - Cost minimisation
 - Distribution of benefits
 - Development of competition
 - Practicality
- 6.220 Previous documents published by the ComReg since 1998 in relation to the use of what was considered to be the most appropriate way to achieve cost orientation are also relevant to the call termination market. Again one of the main Documents published at the time was Document 99/38⁴⁹, in this document the ODTR discussed issues in estimating LRIC costs and that the development of LRIC for Interconnection was the best way forward to;
- encourage efficient competition;
 - send appropriate signals that promote forward looking investment decisions;
 - enable cost recovery by the eircom;
 - facilitate effective means of interconnection;
 - Be sufficiently transparent;and
 - Be non discriminatory and non-preferential.
- 6.221 The regulator also had to provide guidance on costs allowed in their model by directing eircom that additional costs caused by the provision of interconnection may only be recovered to the extent that they have been both fully justified and identified as being incremental to interconnection, and not incurred from internal

⁴⁹ Document 99/38; The Development of Long Run Incremental Costing for Interconnection.

activities of the organisation. Where this was not justified to the satisfaction of the regulator they were not allowed for inclusion in the interconnect rates. Further to this direction a number of directions have been made following review of the conveyance rates for origination, termination and transit rates where the application of costing methodologies or the inclusion of certain costs were not seen to be appropriate. Up to the time of this review ComReg has reviewed the origination, termination and transit rates together.

Products subject to price control

- 6.222 eircom is currently required to offer a wholesale interconnection services at the termination level as set out in Annex D. *eircom* is obliged to meet reasonable requests for these products. ComReg is proposing to continue with the mandatory access to these interconnect services.
- 6.223 As termination is a service that any network provider must provide to another provider in order to complete a call, it is essential that alternative operators are subject to a price control at some level, especially where they are seen to have a countervailing buying power in the market. However in the Irish market this is not expected to be case for some time as there are few that interconnect directly and the majority are most likely to use eircom's transit network to interconnect.
- 6.224 With the availability of the various wholesale services by eircom in the interconnection market, it is expected that OAOs will climb further up the 'ladder of investment'⁵⁰ and thus levels of interconnection between OAOs will increase. ComReg therefore seeks to encourage, where possible efficient infrastructure based competition in the interconnection markets, as this will facilitate effective and sustainable competition. In the long term infrastructure based competition is also more likely to lead to the eventual withdrawal of many of the current and proposed regulatory obligations in the interconnection market as OAOs increase their market share in the termination markets.
- 6.225 The wholesale availability of interconnection services allows OAOs to gain access to the eircom network infrastructure where it would not be possible to economically replicate in its entirety. In the absence of effective competition it is necessary to consider the application of a price control to prevent excessive pricing. It is also necessary to consider the application of a price control on all interconnection wholesale services in order to prevent a price squeeze.

Form of Price control

- 6.226 ComReg is of the preliminary view that all operators have significant market power in the provision of their own network fixed end user call termination services. This includes all termination to primary level interconnection.
- 6.227 ComReg has sought views in Q 45 above with regard to the appropriate treatment of termination rates for OAOs.
- 6.228 ComReg does not believe that competition in this area is likely to increase as only the terminating operator can provide termination on their own network. Currently ComReg is not aware of the possibilities of wholesale or retail substitutability which might change this situation over the coming years, but it will review this situation on an on-going basis.

⁵⁰ See for example ERG Common Position on Remedies, April 2004 available on www.erg.eu.int

Interconnection Market Review

- 6.229 ComReg proposes that in eircom's case prices for termination services be controlled by setting prices on a cost oriented basis by reference to eircom's costs on a forward looking Long Run Incremental Cost basis.
- 6.230 ComReg is of the view that this obligation would be complemented by the imposition of an obligation of transparency, through price publication, an obligation of non-discrimination, in the provision of this service and through an obligation of separated accounting and appropriate cost accounting systems.
- 6.231 In ComReg's view, the absence of a requirement on eircom to provide fixed call termination on a cost-oriented basis, would severely impede competition in the downstream markets as it could result in the levying of excessive prices. This would in turn increase competitors' retail costs. Imposing an obligation of non-discrimination, on its own, would not in ComReg's view, be sufficient in that while the imposition of such an obligation might exert downward pressure on charges, there would still be incentives for dominant operators to set excessive prices to improve profitability.
- 6.232 A price control obligation would allow ComReg to protect consumer welfare and enhance competition by ensuring that all operators would be able to reduce their retail costs as termination rates reduce (provided that such costs are based on efficiently incurred costs), as technology and efficiency improves.
- 6.233 ComReg will monitor the fixed end user termination market on an on-going basis with the view to relaxing the price control obligation in light of increased competition.
- 6.234 The application of the price control remedy will be the same as that proposed in the Call Origination section and any alternative price controls going forward will also be considered in conjunction with the other interconnect markets.

Q. 69. Do you agree that the obligation on eircom to set termination rates for call termination should be cost oriented? Are there any other conditions which should be attached to the proposed obligations? Please detail any your response.

Q. 70. If you agree that price control should be imposed on eircom for call termination should ComReg continue with the application of a FL-LRIC price control until such time as an alternative method is arrived at. Do you agree with this position? Do you believe there are alternative price control methods that have not been considered by ComReg which are less onerous but equally effective as FL-LRIC? Please support your response with economic analysis.

Q. 71. Do you agree that any new interconnect termination services provided by eircom to OAOs should be subject to the same price control obligations as existing services? Please detail your response.

Q. 72. Do you agree that ComReg should consider moving towards the application of a wholesale price cap for call termination conveyance rates? Please provide definitive explanations with your answer.

Accounting Separation

- 6.235 Accounting Separation will help disclose possible market failures and provide evidence in relevant markets of the presence or absence of discrimination and margin squeeze. It will make visible the wholesale prices and internal transfer prices of a dominant operator's products and services. It can also provide ComReg with relevant data which will allow it to perform its duties to ensure prices are not set at an excessive level and provide greater certainty about the cost base.
- 6.236 An obligation of non-discrimination can require, inter alia, the imposition of financial reporting regimes in order to monitor eircom's compliance with such an obligation. With regard to eircom's designation as SMP in this market and the identification of the obligation of non-discrimination as a means to remedy the competition problems discussed earlier, ComReg believes it appropriate to impose an obligation of accounting separation upon eircom in this market.
- 6.237 ComReg is proposing that eircom as an SMP operator should have an obligation not to unduly discriminate. As a vertically integrated undertaking, it may have an incentive to provide wholesale services on terms and conditions that discriminate in favour of its own retail activities in such a way that may have a material effect on competition. The obligation of accounting separation will support ComReg in its monitoring of eircom's behaviour with regard to non-discrimination by clearly reporting its wholesale prices and internal transfer prices for its services.
- 6.238 ComReg proposes to implement accounting separation on a by service and/or product basis. ComReg believes it is not sufficient to implement such an obligation at a market level as it is important to discourage possible cross-subsidisation of pricing at a service level. Operators dominant in relevant markets may provide services in a number of markets and may divide the activities required to supply these services among a number of business units. The division of activities relevant to NRAs for regulatory purposes is the division of services, and the activities which underlie them, between relevant markets. These relevant markets may be a regulated market designated with SMP or a non SMP designated market. Therefore NRAs need to be able to ascertain to what extent services in non SMP markets may impact on services supplied in SMP markets. In order to determine the information required for regulatory purposes, it is necessary to explore the nature of the costs incurred by activities undertaken in the course of supplying a service (or combination of services). If ComReg were to impose accounting separation at the market level, it would not be able to identify whether products and services are being provided on a non discriminatory basis.
- 6.239 As discussed earlier, in deciding upon the imposition of obligations to address competition problems, ComReg must ensure that the obligation is based on the nature of the problem identified, justifiable and proportionate in light of the objectives laid down in section 12 of the Communications Regulation Act 2002 In this regard, the accounting separation obligation is designed to help provide evidence from eircom which may demonstrate the presence or absence of price discrimination.

In this regard, ComReg believes the imposition of accounting separation upon eircom would be justifiable and based upon the nature of the problem identified.

- 6.240 If ComReg were to withdraw this obligation, it would not have any means of monitoring non discrimination or of having any information on margins in the retail business. ComReg does not consider that this obligation will be time consuming and impose a heavy burden on it, as given the size, such organisations must already have management accounting systems in place to support internal business decision-making.
- 6.241 ComReg proposes to consult further on the detailed implementation of accounting separation under the new framework. In the interim, ComReg is proposing that it maintains the existing level of accounting separation on eircom until such time as any further consultations are completed.

Q. 73. Do you believe eircom should have an obligation of accounting separation in the call termination market? Please elaborate on your answer.

Appropriate Obligations: call termination market for calls to Service Providers

- 6.242 As noted ComReg propose to find eircom to be dominant in this market, but the wholesale interconnect charges will only be raised by eircom wholesale on eircom retail as the charging mechanism for these calls ensures that the originating operator recovers its own costs and does not pay for termination.
- 6.243 The requirement for ex-ante regulation is then simply to ensure that eircom's treatment of its own retail arm is non-discriminatory. To achieve this it must demonstrate that its internal charges are cost oriented and transparently set out in separated accounts. Therefore, ComReg is proposing to impose obligations of transparency, non-discrimination and accounting separation on eircom. In placing these obligations upon eircom ComReg would intend to apply the principles of cost orientation and accounting separation that have been listed above.

Q. 74. Do you agree that the obligations listed above are appropriate obligations to impose on eircom in the market for wholesale call termination for calls to service providers? Please elaborate on your answer.

Q. 75. Do you agree that where an obligation for Accounting Separation or Cost Orientation in the call termination market has been proposed on an SMP operator that they should have an obligation to maintain the appropriate Cost Accounting Systems that will fulfil these obligations. (See the Cost Accounting Systems section later in this paper for further discussion in relation to these systems.) Please detail your response.

The Transit Market

- 6.244 As set out in Section 3, it is proposed to define the transit market as the transmission of switched calls between tandem exchanges. ComReg recognises that the transit market is characterised by the concentration of traffic at a relatively small number of geographic locations, and therefore the economies of scale available to competing operators is such that one would expect to see the development of competing infrastructure to occur in this market before it occurs in the other interconnection markets.
- 6.245 As discussed in Section 4, ComReg is aware that a certain amount of alternative transmission network investment has been made, including the government backed investments in the MANs and ESB's network. However, the market for transit services is currently overwhelmingly characterised by self supply with very little scope for alternative operators to win market share in the wholesale transit market except by gaining market share in the retail market. As such ComReg does not believe that the alternative networks will provide effective competition in this market in the timeframe of the review.
- 6.246 ComReg would, over the longer term, hope to see the gradual emergence of infrastructure based competition in this market. When applying obligations on eircom in this market ComReg is aware of the need to avoid discouraging efficient investment by other operators in the longer term while promoting competition in the retail market and delivering maximum benefits to end-users in the short to medium term.

Competition problems in the Transit market

- 6.247 In the absence of *ex ante* regulation, it is very unlikely that eircom would have any incentive to offer access to its facilities on reasonable terms to a competing OAO. ComReg considers that eircom would refuse to deal or indeed may offer access on terms and conditions which amount to constructive denial of access. In late 2000, a multi-operator dispute which, arose due the introduction of a price change for a transit service by eircom, caused an overall revision by ComReg and industry to the transit process. However the industry working group which was established in 2001 failed to resolve the process for transit services and it still remains an outstanding issue. It is ComReg's view that the potential for future disputes and competition problems remains very real in the absence of an agreed process. These could include discriminatory use or withholding of information; delaying tactics; undue requirements; quality discrimination; strategic design of products; and undue use of information about competitors. ComReg has also been involved in setting charges on the basis of FL-LRIC for transit calls from the inception of the service.
- 6.248 With mandated access it is also possible that problems of a price nature such as margin squeeze (price discrimination) could also occur. Currently the charges which eircom can charge are regulated at a wholesale level and ComReg believes that this regulation has to date ensured that such problems have been minimised.

Appropriate Obligations: transit

- 6.249 As demonstrated in the section on Market Analysis Section 4, eircom is the only network operator to be in a position to provide wholesale transit to higher points in the network. ComReg therefore believes that appropriate *ex ante* regulation of

eircom's wholesale transit products is essential to lay the foundations for establishing sustainable competition in fixed retail telecoms markets.

- 6.250 In establishing an *ex ante* regulatory framework designed to facilitate sustainable competition, ComReg needs to ensure that obligations applied on eircom in this market are proportionate to the problems identified. In assessing what is proportionate, ComReg will take account of the effectiveness of obligations for dealing with the problems identified, and take account of the costs associated with the obligations.
- 6.251 In this market, ComReg has considered whether it would be possible to remedy problems by establishing a 'light-handed' *ex ante* regulatory framework that would oversee commercial wholesale transit negotiations. Such regulation would tend to impose a low cost on the SMP operator eircom. However, while the burden on eircom would be relatively light, at the present time ComReg believes eircom would have little incentive to offer fair and reasonable interconnection terms to OAOs it competes against in related downstream markets.
- 6.252 ComReg believes therefore that at a minimum the appropriate suite of obligations needed to remedy problems in this market requires measures directed towards facilitating access to, and the use of, facilities. However, the appropriate form of access needs to be considered by ComReg.
- 6.253 In discussing the appropriate application of obligations in this market, ComReg also need to adopt a forward-looking perspective. While it is recognised that mandating some form of access to wholesale transit services is required to deal with problems over the lifetime of this review, in the future ComReg may rely on other, less onerous, obligations.
- 6.254 If the wholesale transit market were to become more competitive, ComReg would not need to rely upon mandated access regulations. However, it may still be necessary for ComReg to apply measures directed against the application of discrimination by SMP operators. Hence transparency and non-discrimination obligations may still be required to further promote competition.
- 6.255 ComReg therefore proposes to commence the discussion of obligations by considering transparency and non-discrimination requirements, before moving onto its discussion of the appropriate form of access regulations in this market.

Transparency

- 6.256 As stated in the market definition for the Call Origination market, Section 3; it can be argued that transparency is the least intrusive and least burdensome obligation under the *Access Regulations*. Transparency would allow ComReg and OAOs to observe price and non-price terms and conditions for eircom's transit products. However, on its own transparency could not guard against the setting of excessive prices, the imposition of undue requirements, and the application of discriminatory practices by eircom. Furthermore, transparency alone would not be able to tackle problems of delay, especially in relation to new products and to products demanded by OAOs which are not demanded or used by eircom. However, transparency would make clearer whether discriminatory practices are applied by the SMP operator.
- 6.257 ComReg therefore believes that transparency, while having the desirable property of being 'light-handed', is insufficient on its own for dealing with the competition problems identified in this market. As such, ComReg believes that transparency is a

necessary obligation to make effective other obligations in this market. This view is considered further in the discussion of the other obligations that may be applied on eircom by ComReg in the wholesale transit market.

Q. 76. Do you agree that on its own the application of a transparency obligation would not remedy the problems identified in this market? Do you agree that transparency, and in particular the requirement to make public interconnection terms and conditions, is a necessary remedy to problems actual and prospective in this market? Please detail your response.

Q. 77. Do you agree that an obligation of transparency should be imposed on eircom? Please detail your response.

- 6.258 Regulation 10 of the *Access Regulations* provides for the imposition of transparency obligations that can be imposed. Of these ComReg considers it appropriate to require eircom to publish a reference offer for transit services that is sufficiently unbundled to ensure that undertakings are not required to pay for facilities which are not necessary for the service requested. This should include a description of the relevant offerings broken down into components according to market needs; and a description of the associated terms and conditions, including prices.
- 6.259 In line with the proposed access obligation on eircom not to withdraw access to facilities already granted, ComReg believes that eircom should continue to publish a Reference Offer containing details of access to facilities already granted. ComReg considers that this obligation would be met by the continued publication of the transit service schedule and prices, call origination service schedules, prices, product descriptions and inter-operator process manuals and call termination service schedule and prices contained in Core RIO document Version 3.11 and eircom RIO Price List Version 1.36 and eircom Switched Transit Routing Price List Issue 32.
- 6.260 ComReg has imposed a similar unbundling obligation on eircom in both the call origination market and the end-user call termination market. ComReg proposes that the optimal way to meet this obligation in the three markets is to require eircom to continue publishing the services that fall within these markets, in the same format as they are published in the current RIO (Version 3.11). ComReg further proposes that the reference offer for the three markets- call origination market, eircom end-user call termination and transit – should be published as one offer.

- Q. 78. Do you agree that eircom should be required to publish a Reference Offer containing details of access to facilities already granted?**
- Q. 79. Do you agree that eircom should be required to publish the services that fall within the call origination, the eircom call termination and transit markets in the same format as they are published in the current RIO? Please provide a detailed response.**
- Q. 80. Do you agree with ComReg's proposal to require eircom to publish one reference offer for three markets - call origination market, eircom call termination and transit?**

- 6.261 In addition, ComReg considers that eircom should publish (in relation to the access obligation imposed under Regulation 13 (2) (c)) specified information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and price which is necessary for the provision of new and existing transit services. ComReg believes that this information should be published as part of the Reference Offer.
- 6.262 ComReg considers that this obligation would be met by the continued publication of the relevant facilities in accordance with the terms, conditions and specifications contained in the Main body clauses, Annex A definitions, Billing and Payments annex, located in the eircom Core RIO Document Version 3.11, Billing forms, Network Plan, Technical Manual, CLI CoP, Call Origination and Termination Routing Scheme, Non Disclosure Agreement as published as stand alone documents on eircom's wholesale website and the prices contained in the eircom RIO Price List Version 1.36 and eircom Switched Routing Transit Price List Issue 32.
- 6.263 ComReg has imposed a similar obligation on eircom in both the call origination market and the end-user call termination market. Although ComReg recognises that while there are some differences between the markets in meeting this obligation, the majority of information applies to the three markets in a standard way. ComReg therefore proposes that the optimal way for this obligation to be met is to require eircom to publish all information as part of a standard suite of documents comprising its Reference Interconnect Offer.

Q. 81. Do you agree that eircom should publish specified information which supports transit services? Please detail your response.

Q. 82. Do you agree with ComReg's proposal to require eircom to publish specified information relating to the call origination, the eircom call termination and transit markets in a standard suite of documents comprising its Reference Interconnect Offer ?

6.264 ComReg is of the opinion that eircom should be required to provide and publish appropriate manuals, order forms and processes for new and existing services, the details to be determined on a case by case basis.

Q. 83. Do you agree that eircom should be required to publish appropriate manuals and documentation for new and existing Transit services? Please detail your response.

6.265 ComReg proposes that eircom should be required to publish the Reference Offer for transit services on its wholesale website so as to afford easy and predictable access for users.

Q. 84. Do you agree that eircom should publish a Reference Offer for Transit services on its wholesale website?

6.266 A number of processes currently apply to the publication of eircom's RIO- these include the republication of the RIO when any price changes have been approved by ComReg, a text process that was mandated in D10/02, a process for the introduction of new interconnection and associated retail products, and the application of version control to RIO documents. ComReg believes that these obligations should be maintained and should apply to all the documents which apply to eircom's transit services.

Q. 85. Do you agree that the current processes that apply to the publication of eircom's RIO should be maintained for transit services?

6.267 If eircom is designated as having SMP in this market, ComReg would be in a position to impose on eircom, in accordance with Regulation 10 (1) of the Access Regulations, obligations to ensure transparency in relation to interconnection, access or both interconnection and access which would require eircom to make public specified information.

Q. 86. Is there information eircom should provide to ComReg or industry or both? Please support your answer with details.

- 6.268 ComReg believes it will also be necessary to impose obligations of transparency in support of any accounting separation obligations, as this would allow the calculation of costs and prices (i.e. internal price transfers) to be rendered visible. Further, this would also allow ComReg to monitor compliance with any non-discrimination obligations, and address competition problems relating to cross subsidisation, price discrimination and the application of price squeezes.
- 6.269 As a further enhancement to the level of transparency in the wholesale call transit market ComReg believes that eircom should provide itemised billing to other authorised operators. The introduction of this would allow for a level of granularity that would enable operators to be in a position to reconcile amounts billed on a wholesale level to that billed on a retail level and ensure there are no discrepancies. Currently this process is being improved on an ad hoc basis and mainly on the request of other operators who encounter difficulty in reconciling bills from eircom to their in house systems. It is general practice in industry that prior to payment of any bill a full breakdown of what the bill relates to is required by the paying party.

Q. 87. Do you agree that eircom should be required to provide itemised billing? If you agree please indicate in what format this should be provided in order to provide the level of detail required to reconcile bills to a satisfactory level i.e. soft copy versus hard copy, whether it should be monthly/quarterly.

Q. 88. If itemised billing is introduced how should any additional costs incurred in providing this service be recovered?

Non- discrimination

- 6.270 As discussed in the Call Origination section, ComReg considers that competition problems such as the strategic design of products would persist in this market even where a transparency obligation had been imposed. Therefore, in addition to the transparency obligation, ComReg believes that a non-discrimination obligation should be imposed on eircom. Furthermore ComReg considers that a non-discrimination obligation will complement the other obligations of transparency and access (on the latter see below).
- 6.271 The application of a non-discrimination obligation would require eircom to offer equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and require eircom to provide services and information to others under the same conditions and of the same quality as it provides for its own services or those of its subsidiaries or partners.

6.272 In particular ComReg considers that eircom must provide information and services to alternative operators in timescales, on a basis, and of a quality, which are at least as good as those provided to eircom's retail arm and associates.

Q. 89. Do you agree that eircom should also be required to provide transit information and services on a non discriminatory basis to its retail arm and alternative operators? Please detail your response.

6.273 It is important that information gained by eircom as a result of their provision of transit services to another operator is not used by eircom's downstream arms in any manner. In other words ComReg believes that eircom's downstream arms should not have privileged access to eircom wholesale.

Q. 90. Do you agree that eircom's downstream arms should have the same access to eircom wholesale as alternative operators? Please detail your response.

6.274 Furthermore ComReg proposes that eircom should be required to apply a standard process for the development and introduction of new transit services and elements, including standard documentation and timescales.

Q. 91. Do you agree that eircom should be required to apply a standard process for the development and introduction of new transit services and elements? Please detail your response.

6.275 In addition to the obligation of non discrimination, ComReg considers that it will also be necessary to impose obligations of transparency and accounting separation in order to monitor the non discrimination obligation and address the price competition problems identified earlier. The afore mentioned obligations will enable ComReg to demonstrate the provision of services to other operators under the same conditions (i.e. price) as eircom provides for its own retail arm and thus address the possible price problems of cross subsidisation, price discrimination and margin squeezes.

Access to and use of specific network facilities

6.276 The transparency and non-discrimination obligations proposed above are necessary but insufficient on their own for dealing with the competition problems in this market.

6.277 In the absence of regulation, it is very likely that if eircom was left on its own to commercially negotiate with alternative operators it would deny access to its transit services to or at the least offer such access on uncompetitive terms. As with

providing access to call origination and termination services, eircom's refusal to provide access to transit would create serious difficulties for its competitors to compete on the retail voice market.

- 6.278 ComReg has considered and concluded that the competition problems in this market can not be addressed by the remedy of non discrimination on its own as there may be situations where an operator may require a service which eircom retail does not. Furthermore, in the case of single (third party) transit, the majority of OAOs rely on eircom to deliver calls from/ to their network to/ from alternative operators' networks and have to purchase transit for this. However, eircom has direct interconnection arrangements with almost all electronic communications network providers in Ireland and therefore would generally not need to avail of single (third party transit). Therefore in the absence of imposing an access obligation on eircom, eircom would be free to refuse to supply to requesting operators.
- 6.279 Therefore a requirement on the SMP provider to provide wholesale access to its networks is required to facilitate competition in downstream markets by enabling competitors to compete without the need to invest in a ubiquitous network.
- 6.280 ComReg has concluded that an access remedy pursuant to Regulation 13 of the *Access Regulations* is required to address the competition problems present in the transit market. It considers that mandating access to transit services is based on the nature of the problem identified, is proportionate and is justified.
- 6.281 It is unlikely within the timeframe of this review for OAOs to build a transit network that could replicate eircom's network and be a comprehensive substitute. Considerable investment is needed to provide networks in competition with eircom. It may be economically viable to build backbone networks covering some parts of Ireland. However the level of investment that would be needed to achieve the same ubiquitous coverage as eircom is very costly to entry in this market.
- 6.282 Currently and within the period of this review, it is clear that OAOs will need access to eircom's transit network in order to deliver retail voice telephony services to end-users and compete with eircom in the downstream market.

Q. 92. Do you agree that an access obligation for transit services should be imposed on eircom pursuant to Regulation 13? Please detail your response.

- 6.283 Turning to the detail, ComReg believes the following access obligations should be imposed on eircom.
- 6.284 Pursuant to Regulation 13 (2) (i) of the *Access Regulations* ComReg propose that eircom should be required to interconnect networks or network facilities. This is necessary to maintain eircom's obligation to interconnect with existing and new OAOs.

Q. 93. Do you agree with ComReg’s proposal to require eircom to interconnect networks or network facilities? Please detail your response.

6.285 Pursuant to Regulation 13 (2) (c) ComReg proposes that eircom should have an obligation not to withdraw access to facilities already granted. This is necessary to ensure that OAOs have the certainty to provide retail services to the marketplace and so compete with eircom. ComReg considers that this obligation would be met by the continued offering of: the transit service schedule and prices; call origination service schedules (excluding FRIACO), prices, product descriptions and inter-operator process manuals; and call termination service schedule and prices contained in Core RIO document Version 3.11 and eircom RIO Price List Version 1.36, and eircom Switched Transit Routing Price List Issue 32.

6.286 There are circumstances where it may be desirable to withdraw access to facilities, for example when a facility is no longer needed and it is an undue burden on eircom to maintain it. ComReg therefore proposes to qualify the obligation on eircom not to withdraw access to facilities already granted, save without prior ComReg approval which would only be granted following public consultation.

Q. 94. Do you agree that eircom should be required not to withdraw access to facilities already granted, save without prior ComReg approval which would only be granted following public consultation? Please detail your response.

6.287 Pursuant to the obligations contained Regulation 13(2) (c) and 13 (3) of the *Access Regulations* of the Access Regulations ComReg considers that eircom should be required to continue to provide specified information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices which is necessary for the provision of *existing* transit services. ComReg considers that this obligation would be met by the continued offering of the relevant facilities in accordance with the terms, conditions and specifications contained in the Main body clauses, Annex A definitions, Billing and Payments annex, contained in the eircom Core RIO Document Version 3.11, Billing forms, Network Plan, Technical Manual, CLI CoP, Call Origination and Termination Routing Scheme, Non Disclosure Agreement as published as stand alone documents on eircom’s wholesale website, and the prices contained in the eircom RIO Price List Version 1.36 and eircom Switched Routing Transit Price List Issue 32.

Q. 95. Do you agree with ComReg’s proposal to require eircom to provide specified information which supports existing and new transit services? Please detail your response.

6.288 In the future and within the timescale of this review, ComReg considers that access seekers may need to avail of other products which are included within the definition of the relevant wholesale market that will allow them to develop retail offerings to compete in the retail market. At this stage ComReg believes it to be overly interventionist and premature to mandate such products, but does propose to impose an obligation on eircom to meet reasonable requests from OAOs, pursuant to Regulation 13 (1) of the *Access Regulations* for such products. Any such request will be reviewed in the context of Regulation 13 (4) of the *Access Regulations*. However at this stage ComReg wishes to note that imposition of any access remedy through Regulation 13 will be granted only when that remedy represents the only way to compete effectively.

Q. 96. Do you agree that eircom should have an obligation to meet reasonable requests for access? Please detail your response. If you believe that eircom should be required to answer reasonable requests for access for transit, are there specific wholesale products or features or additional associated facilities not currently offered in the eircom RIO that should be provided by eircom? Please provide details of such products and why their inclusion in the RIO would remedy competition problems in this market.

6.289 Additionally, pursuant to Regulation 13 (2) (b) of the *Access Regulations* ComReg also believes that eircom should have the obligation to negotiate in good faith with undertakings requesting access.

6.290 Pursuant to Regulation 13 (3) of the *Access Regulations* ComReg considers that eircom's transit services must be provided on terms and conditions which are fair, reasonable and timely. In addition, ComReg believes that the terms and conditions should be supported by Service Level Agreements and compensation payments.

Q. 97. Do you agree that eircom must provide transit services on terms which are fair, reasonable and timely? In addition do you agree with ComReg's proposal that these terms and conditions should be supported by Service Level Agreements and compensation payments? Please detail your response.

6.291 ComReg is of the opinion that eircom should be required to provide unbundled transit service to ensure that undertakings are not required to pay for facilities which are not necessary for the service requested. The level of unbundling should be the same as that offered at the time to its retail division or subsidiaries.

Q. 98. Do you agree that eircom should provide unbundled transit services as part of its Access obligation? Please detail your response.

6.292 ComReg proposes that eircom should be required to provide access to transit services to competitors at an equivalent standard and at an equivalent time as the retail arm.

6.293 Furthermore ComReg proposes that eircom should be required to provide competitors with information necessary for access to its transit services at an equivalent standard and an equivalent time as the retail arm.

Q. 99. Do you agree that eircom should provide access to and information necessary for access to transit services to competitors at equivalent times and standards as it provides to its retail arm? Please detail your response.

6.294 When products are mandated ComReg believes that there may be an incentive for eircom to limit access or make access more difficult. It is obviously necessary for OAOs to have open access to technical interfaces, protocols, and OSS such as is necessary for them to take up the mandated product and allow them to compete with eircom at the retail level in winning customers. Therefore, pursuant to Regulation 13 (2) (e) of the *Access Regulations* ComReg also considers it appropriate that, insofar as it is required to avail of access, eircom should also grant open access to technical interfaces, protocols, or other key technologies.

Q. 100. Do you agree that eircom should be required to grant open access to technical interfaces, protocols, or other key technologies and should also be required to provide such OSS or similar software necessary to ensure fair competition in the provision of services? Please detail your response.

6.295 In addition, ComReg considers that it is necessary for OAOs to have access to Intelligent Network (IN) facilities or other specified services needed to ensure interoperability of end-to end services to users pursuant to Regulation 13 (2) (g) of the *Access Regulations*.

Q. 101. Do you agree that eircom should be required to provide specified services needed to ensure interoperability of end-to end services to users? Please support your response with details.

- 6.296 Similarly, pursuant to Regulation 13 (2) (h) of the *Access Regulations* ComReg proposes to require eircom to provide such operational support systems (OSS) or similar software necessary to ensure fair competition in the provision of services.

Q. 102. Do you agree that eircom should be required to provide such operational support systems or similar software necessary to ensure fair competition in the provision of services? Please detail your response

Price control and Cost Accounting

- 6.297 In the transit market price control may be necessary when dealing with competition problems that stem from the potential of eircom to over recover the cost of running the network which may enable them to leverage market power in vertical settings from the allocation of costs to the core network which are not appropriate in a forward looking environment. A price control could be required particularly if there is expected to be insufficient competition in upstream markets, especially where there are high entry barriers into the upstream segments. As described in the Market Analysis section entry to the transit market requires substantial investment at ground level and not many operators are in a position to do this which leaves the possibility of increasing competition to a level where rates would not require regulation very low.
- 6.298 On completion of the market analysis of the transit market and where a price control would appear to be necessary as part of an overall remedy, ComReg will commence its analysis of the appropriateness of the price control by examining whether a price control applied only to wholesale services would be sufficient to promote effective competition and be in the best interest of end-users.
- 6.299 Similar to the other interconnect markets a price control may range from requiring prices to be reasonable (in that they afford an operator a reasonable return), to requiring prices to be cost oriented.
- 6.300 As eircom is a vertically integrated operator with market power in the wholesale call transit markets, in the absence of appropriate ex ante regulation of wholesale products it would be able to exert its market power in a similar way to those described in the call origination.
- 6.301 The provision of a transit service is dependant on the volume of traffic running between operators. If volumes are high then it is most likely to be more efficient for those operators with high volumes to set up a connection (through interconnect links). This would allow the relevant operators to be less dependent on eircom for the provision of a transit service and also provide an alternative for other operators and hence enhance competition. Unlike call origination the infrastructure build out required is a lot less costly and is a lot more likely to occur going forward as the cost would be justified through interconnect cost savings.
- 6.302 ComReg expects competition to develop in this market by other OAOs and MOs building out to more exchanges and being able to substitute eircom transit services with their own or a third party purchase. However ComReg does not expect these expectations to affect the finding of SMP within the next two years at least.

6.303 Once again economies of scale will play an important role as the transit market matures. The establishment of connections between operators will only be justified where there is sufficient traffic flowing between two operators. With the current market share enjoyed by eircom in the call origination market it is unlikely that the other OAOs will be able to achieve the same volumes and average costs as those achieved by eircom.

Principles of Price Control

6.304 As stated above, a price control can be used to remedy the leverage of upstream market power into potentially competitive downstream retail markets. To prevent such behaviour, ComReg proposes to continue the obligation that interconnection services are offered at cost oriented prices. By ensuring that interconnect prices are cost oriented ComReg ensures that the provision of interconnection is on fair and efficient terms and that costs are soundly derived from appropriate costs and give proper economic signals to operators to guide their investment decisions.

6.305 In applying a price control based upon cost orientation, ComReg will need to pay careful attention to the treatment of common costs. Common costs are those costs which are shared across a number of products. Where common costs are shared between products in an SMP market and with products in a non-SMP market, the SMP designated operator may seek to allocate disproportionately the common costs into the SMP market. By so doing the SMP operator would effectively raise rivals costs, and as a result would be able to cross-subsidise the products in the non-SMP market. ComReg will therefore review closely common costs in any application of a cost oriented price control in this market.

6.306 The principle that only efficiently incurred costs can be recovered through interconnection charges is one that ComReg believes is of vital importance. eircom at an operational level is free to manage its network, and to route calls across the network, however it sees fit (subject to the non-discrimination obligation). However, should eircom for its own reasons choose to manage its network in a manner that deviates from the standard of efficient operation then it shall only be allowed to recover those costs that would have been incurred had it operated efficiently.

6.307 Where it is efficient to do so, eircom will incur network overheads associated with the management of the network, for instance the intelligent network platform or spare capacity for overflow routing. As these costs are overheads associated with managing the entire network these costs should be recovered across all calls and interconnect calls should pick up a fair proportion of these costs.

6.308 Prior to the implementation of the above price control and in conjunction with the market analysis data considered, ComReg has also taken into account the cost recovery principles commonly applied in order to decide on the level of price control necessary at this stage. As already outline in call origination the main principles are as follows;

- Cost causation
- Cost minimisation
- Distribution of benefits
- Development of competition
- Practicality

6.309 Previous documents published by the ODTR since 1998 on what was considered to be the most appropriate way to achieve cost orientation are also relevant to the call termination market. Again one of the main Documents published at the time was Document 99/38⁵¹, in this document the ODTR discussed issues in estimating LRIC costs and that the development of LRIC for Interconnection was the best way forward to;

- encourage efficient competition;
- send appropriate signals that promote forward looking investment decisions;
- enable cost recovery by eircom;
- facilitate effective means of interconnection;
- be sufficiently transparent;
- be non discriminatory and non-preferential.

The regulator also had to provide guidance on costs allowed in their model by directing eircom that additional costs caused by the provision of interconnection may only be recovered to the extent that they have been both fully justified and identified as being incremental to interconnection and not incurred from internal activities of the organisation. Where this was not justified to the satisfaction of the regulator they were not allowed for inclusion in the interconnect rates. Further to this direction a number of directions have been made following review of the conveyance rates for origination, termination and transit rates where the application of costing methodologies or the inclusion of certain costs were not seen to be appropriate. Up to the time of this review ComReg has reviewed the origination, termination and transit rates together.

Products subject to price control

6.310 Call transit services currently offered by eircom are set out in Annex D to this document. eircom is obliged to meet reasonable requests for these products. ComReg is proposing to continue with the mandatory access to these interconnect services.

6.311 In order for OAOs to offer the equivalent eircom services at the retail level to end-users it has been necessary for these services to be available at a wholesale level where their own networks were limited or where only a point of interconnection was held. Up to now and because of the problems of vertical foreclosure, access to eircom's wholesale interconnect services were mandated using cost oriented price reviews based on FL-LRIC costing methods. This access obligation and price control obligation has enabled service based competition, and as a consequence efficient OAOs have been able to grow larger customer bases. As the customer bases of OAOs achieves a critical mass, this provides a more stable environment for further infrastructure investments in the core networks by the OAOs and reduced reliance on the eircom network for transit functionality.

6.312 Through the obligation on eircom to offer interconnection at the wholesale level OAOs have been in a stronger position to climb further up the 'ladder of

⁵¹ Document 99/38; The Development of Long Run Incremental Costing for Interconnection.

investment⁵². ComReg therefore seeks to encourage, where possible efficient infrastructure based competition where practical in the interconnection markets, as this will facilitate effective and sustainable competition. ComReg would hope that with increased infrastructure based competition that the currently high level of regulation could be relaxed in certain areas and even withdrawn where markets are deemed competitive in the coming years.

6.313 The wholesale availability of interconnection services allows OAOs to gain access to the eircom network infrastructure where it would not be possible to economically replicate in its entirety nor would it be practical. In the absence of effective competition in the interconnection market as a whole it is necessary to consider the application of a price control in the call transit market also so as to prevent excessive pricing.

Form of Price control

6.314 eircom's dominance in the wholesale call transit market would enable it to exploit its market position (primarily excessive pricing) which would be detrimental for OAOs and their end-users. Consequently, ComReg is proposing to impose the obligation of a price control on eircom.

6.315 As stated above, a price control can be used to remedy the leverage of upstream market power into potentially competitive downstream retail markets. To prevent such behaviour, ComReg proposes to continue the obligation that interconnection services are offered at cost oriented prices. By ensuring that interconnect prices are cost oriented ComReg ensures that the provision of interconnection is on fair and efficient terms and that costs are soundly derived from appropriate costs and give proper economic signals to operators to guide their investment decisions.

6.316 In order to achieve a high level of assurance that interconnect rates are cost oriented in the call transit market it is necessary to apply the most appropriate methodology that will achieve this. These methodologies have been discussed in detail when looking at the imposition of the price control remedy in the call origination market. The same approach will be adopted in the call transit market.

6.317 Alternative price controls, such as wholesale price cap will also be considered for the transit market on completion of the market analysis process. Other obligations, such as non-discrimination, are insufficient on their own to remedy the problem of exploitative behaviour.

Q. 103. ComReg proposes to continue with the application of a FL-LRIC price control for call transit conveyance rates until such time as an alternative model is agreed upon. Do you agree with this position? Do you believe there are alternative price control methods that have not been considered by ComReg which are less onerous but equally effective as FL-LRIC? Please support your response with economic analysis.

⁵² See for example ERG Common Position on Remedies, April 2004 available on www.erg.eu.int

Q. 104. In light of the likely increase in competition in the transit market in the foreseeable future do you think that ComReg could relax any part of the price control obligation when compared to the call origination market? Please detail your response.

- 6.318 The application of a price control and cost accounting is necessary in order to ensure that potential competition problems do not occur, and that excessive pricing does not feature. Given eircom's high market share (65%) in the wholesale transit market and hence its provision of wholesale transit services to third parties, ComReg believes that it is necessary that some form of price control should be imposed on eircom. ComReg, or the ODTR as it was known at the time, commenced the regulation of eircom in the interconnect market in 1998 which included the call transit market. Since this time there have been a number of consultations and directions made in relation to the costing principles applied in the calculation of the call transit rates. This again arose as there has been insufficient competition in the market to prevent excessive pricing. Through existing regulatory powers since this time, costs have been calculated using methods that were deemed to be appropriate to the circumstances and which would promote efficiency and sustainable competition and maximise consumer benefits.
- 6.319 The application of FL-LRIC costing methodology on a top down basis was seen as the most appropriate method of arriving at call transit rates at a wholesale level. It ensures the principles addressed in the call origination section of price control were achieved.
- 6.320 ComReg has also provided substantial guidance on the costs allowed in their model when arriving at interconnect transit rates. The ODTR/ComReg have in the past always consulted with industry before directing on any changes to costs, and only where there was common agreement to the most appropriate approach to ensuring costs are cost oriented are directions made.
- 6.321 ComReg will review on an on-going basis the generality of all the wholesale transit services in the RIO on a periodic basis; this includes those listed in Annex D.
- 6.322 In order for ComReg to ensure that rates are set at those of an efficient forward looking operator and as such that there are no historic costs which are recovered by eircom which are not relevant to interconnection at the wholesale level, a comprehensive review of the rates has been carried out since the introduction of the wholesale interconnection rates and a number of amendments to cost models submitted by eircom have been directed on. Such decisions were made in an effort to send appropriate signals to eircom and entrants alike on the basis of a reasoned approach to the underlying costs of a forward looking efficient operator.
- 6.323 Currently the charges which eircom can apply are regulated both at a wholesale and a retail level and ComReg believes that this regulation has to date ensured that the competition problems set out above are not evident in the Irish market. However any removal of such obligations would provide incentives for eircom to engage in the behaviour described above. Even with regulated pricing, ComReg was forced on several occasions to intervene and direct amendments to the costing models prepared by eircom and to their processes through review of the RIO top down model and published RIO documents.

- 6.324 As part of the remedies going forward ComReg will consider, on the completion of this market review process, the introduction of RPI-X price control instead of the rate of return as is currently applied. It is the expectation that this will have advantages over the current regime in that it provides very clear incentives to eircom to minimise costs. If the firm can reduce its costs below the level expected when the cap was set then the firm retains increased profits, at least for the period until the cap is reviewed. In addition it avoids overly intrusive and bureaucratic regulation.

Q. 105. Do you agree that ComReg should consider moving towards the application of an industry agreed wholesale price cap control for call transit conveyance rates? Please detail your response.

Accounting Separation

- 6.325 Accounting Separation will help disclose possible market failures and provide evidence in relevant markets of the presence or absence of discrimination and margin squeeze. It will make visible the wholesale prices and internal transfer prices of a dominant operators products and services. It can also provide ComReg with relevant data which will allow it to perform its duties to ensure prices are not set at an excessive level and provide greater certainty about the cost base.
- 6.326 An obligation of non-discrimination can require, inter alia, the imposition of financial reporting regimes in order to monitor eircom's compliance with such an obligation. With regard to eircom's designation as SMP in this market and the identification of the obligation of non-discrimination as a means to remedy the competition problems discussed earlier, ComReg believes it appropriate to impose an obligation of accounting separation upon eircom in this market.
- 6.327 ComReg is proposing that eircom as an SMP operator should have an obligation not to unduly discriminate. As a vertically integrated undertaking, it may have an incentive to provide wholesale services on terms and conditions that discriminate in favour of its own retail activities in such a way that may have a material effect on competition. The obligation of accounting separation will support ComReg in its monitoring of eircom's behaviour with regard to non-discrimination by clearly reporting its wholesale prices and internal transfer prices for its services.
- 6.328 ComReg intends to implement accounting separation on a by service and/or product basis. ComReg believes it is not sufficient to implement such an obligation at a market level as it is important to discourage possible cross-subsidisation of pricing at a service level. Operators dominant in relevant markets may provide services in a number of markets and may divide the activities required to supply these services among a number of business units. The division of activities relevant to NRAs for regulatory purposes is the division of services, and the activities which underlie them, between relevant markets. These relevant markets may be a regulated market designated with SMP or a non SMP designated market. Therefore NRAs need to be able to ascertain to what extent services in non SMP markets may impact on services supplied in SMP markets. In order to determine the information required for regulatory purposes, it is necessary to explore the nature of the costs incurred by activities undertaken in the course of supplying a service (or combination of services). If ComReg were to impose accounting separation at the

market level, it would not be able to identify whether products and services are being provided on a non discriminatory basis.

- 6.329 As discussed earlier, in deciding upon the imposition of obligations to support the remedy of competition problems, ComReg must ensure that the obligation is based on the nature of the problem identified, justifiable and proportionate in the support of competition promotion, must encourage access to the network in order to ensure efficient and sustainable competition and must contribute towards maximising consumer benefits. In this regard, the accounting separation obligation is designed to help provide evidence from eircom which may demonstrate the presence or absence of price discrimination. In this regard, ComReg believes the imposition of accounting separation upon eircom to be justifiable and based upon the nature of the problem identified.
- 6.330 If ComReg were to withdraw this obligation, it would not have any means of monitoring non discrimination or of having any information on margins in the retail business. ComReg does not consider that this obligation will be time consuming and impose a heavy burden on it, as given the size of such organisations must already have management accounting systems in place to support internal business decision-making.
- 6.331 ComReg proposes to consult further on the detailed implementation of accounting separation under the new framework. In the interim, ComReg is proposing that it maintains the existing level of accounting separation on eircom until such time as any further consultations are completed.

Q. 106. Do you believe operators designated with SMP in the Call Transit market should have an obligation of accounting separation? Please elaborate on your answer.

Q. 107. Do you agree that where an obligation for Accounting Separation or Cost Orientation has been proposed in the call transit market on an SMP operator that they should have an obligation to maintain the appropriate Cost Accounting Systems that will fulfil these obligations. (See the Cost Accounting Systems section below for further discussion in relation to these systems.) Please detail your response.

Cost Accounting Systems

- 6.332 A cost accounting system will be necessary where an obligation has been imposed on a dominant operator in relation to cost oriented pricing, price controls, recovery of costs and/or retail tariff controls. With regard to the three particular markets, the obligation of cost orientation has been proposed as an appropriate obligation to be imposed on eircom and therefore ComReg proposes to impose a further obligation with regard to cost accounting systems on eircom.
- 6.333 In this regard, the obligation of cost accounting systems supports the obligations of cost-orientation and accounting separation and can provide greater assurance to

ComReg in monitoring of the obligation of non discrimination and address the competition problems identified earlier and is appropriate for the purposes of promoting efficiency, promoting sustainable competition, and conferring the greatest possible benefits on the end-users of public electronic communications services.

- 6.334 In order to demonstrate cost orientation of a service or product, it is necessary for eircom to establish cost accounting systems that capture, identify, value and attribute relevant costs to its services and products in accordance with agreed regulatory accounting principles, such as cost causality. A key part of this process is the stage which identifies those parts of the underlying activities or elements that directly support or are consumed by those services or products. These elements are referred to as network components. As these components are frequently used to provide more than one product or service, it is also necessary to determine how much of each component is used for each service or product that should be cost-oriented. The service/product costing methodology applies the utilisation of these components to the appropriate service product.
- 6.335 ComReg is of the view that eircom could maintain some or all of its prices at an excessively high level, or impose a margin squeeze so as to have adverse consequences for end-users. If ComReg were to relax this obligation, it would not have any means of ensuring the cost orientation of prices in the market and prevent such potential market failure.
- 6.336 As operators may operate in both SMP and non SMP designated markets, the division of services and products, and the corresponding costs, capital employed and revenues, between the different markets should be reflected in costing systems and coherence and integrity of information should be assured. Where such particular costs form part of the cost of an SMP service ComReg needs to have visibility as to the basis of and amount of allocation across all services. Therefore an obligation of Cost Accounting Systems can provide greater assurances in monitoring non discrimination and address the competition problems identified.
- 6.337 ComReg does not consider that this obligation will be time consuming and impose a heavy burden on eircom, as given the size of such organisations, they must already have management accounting systems in place to support internal business decision making.
- 6.338 ComReg proposes to consult further on cost accounting systems and accounting separation methodologies supporting cost accounting. In the interim ComReg is proposing that it maintains the existing level of cost accounting system obligation on eircom until such time as any further consultations are completed.

International Access

- 6.339 As described in the Market Definition Section 3 and as found in the Market Analysis Section 4, ComReg considers International Access to be competitive and as such regulation of this market may not be seen to be necessary going forward.
- 6.340 Under Regulation 8 (2) of the Access Regulations, ComReg is obliged to give as much notice as it considers reasonable to any affected party prior to the possible relaxation of current obligations on eircom.

Q. 108. Do you agree that this market is effectively competitive and ComReg should not be required to impose market remedies on eircom or any other operator? If you agree, what timeframe should be allowed for the relaxation of current regulation? Please provide details with your answers.

7 Other services necessary for the provision of Interconnection

Capacity Based Interconnection Products

- 7.1 Earlier in this document, ComReg has set out its views as to the appropriate obligations to be imposed on the markets for call origination, termination and transit markets. It is important to note that these obligations cannot be availed of without certain ‘supporting’ products which are necessary in order to avail of mandated obligations. These are known as capacity based interconnection products.
- 7.2 ComReg considers the products described in Service Schedules 002 (Interconnect Paths) and 005 (In Span Interconnection) in eircom’s current Reference Interconnect Offer (Version 3.10) and eircom RIO Network Price List (Version 2.0) fall within the definition of these capacity based products. The existing Interconnect Operations & Maintenance (O&M) Manual and the Service Level Agreement (SLA) for Interconnect Paths and Traffic Designation for Inbound & Outbound Interconnection Paths document published on eircom’s wholesale website, support provision and operation of these services.
- 7.3 Without these services, interconnection for the purposes of origination, termination and transit cannot be effected and so ComReg intends to mandate the provision of capacity based interconnection products outside the market review process; that is without a designation of SMP or without definition of a relevant market.
- 7.4 This is provided for in Regulation 6 of the *Access Regulations* which states that ComReg must encourage and ensure adequate access, interconnection and interoperability. In particular, without prejudice to measures that may be taken regarding undertakings with significant market power, ComReg is able to impose, to the extent that it is necessary to ensure end to end connectivity, obligations referred to in Regulations 10 to 14 inclusive on undertakings that control access to end-users, including in justified cases the obligation to interconnect their networks where this is not already the case.
- 7.5 Furthermore, in its *Explanatory Memorandum to the Recommendation on Relevant Markets*, the European Commission dealt with the question of imposing remedies in an area outside a defined market. The Commission recognised that in dealing with lack of effective competition in an identified market, it may be necessary to impose several obligations to achieve an overall solution. The *Explanatory Memorandum* states:
- “For instance, it may often be the case that adjacent or related remedies are applied to technical areas as part of the over all obligation that addresses SMP on the analysed market. If specific remedies are thought to be necessary in a specific narrow technical area, it is not necessary or appropriate to identify each technical area as a relevant market in order to place obligations in that area.”*
- 7.6 ComReg considers its approach in mandating capacity based interconnection products to be consistent with the approach set out in the *Access Regulations* and the *Explanatory Memorandum*.
- 7.7 ComReg interprets this to mean that the products described in Service Schedules 002 (Interconnect Paths) and 005 (In Span Interconnection) in eircom’s current

Reference Interconnect Offer (Version 3.10) and eircom RIO Network Price List (Version 2.0) as well as the Interconnect O&M Manual, the SLA for Interconnect Paths and the Traffic Designation for Inbound & Outbound Interconnection Paths document published on eircom's wholesale website, will continue to be supplied under the current terms and conditions. This means the current obligation to provide such products on a reasonable request basis continues. Obligations in respect of transparency and non discrimination also continue. These products will remain subject to price control as in the current regime. Such charges are based on LRIC and must also be consistent with the principles applicable to charging of Partial Private Circuits given their deployment in provision of PPCs.

Q. 109. Do you agree that ComReg should mandate capacity based interconnection products in this manner? Please detail any comments

Fixed SMS

7.8 Fixed SMS has as yet not been made available by any operator. Once this service does become available any request from another operator for the provision of the service would be considered a reasonable request and will be covered through the Wholesale Line Rental provision for Non Discrimination. As such it is not felt necessary at this stage to impose any further remedies, however this will be considered further when the service comes into operation.

Q. 110. Do you agree with the above position taken by ComReg in relation to Fixed SMS? Please detail any comments

Calls to directory enquiry and operator assisted services and subsequent call completion services for calls originating on the eircom network

7.9 The charges for access to eircom's DQ and OA services in its RIO include both the costs of conveyance and the labour costs of the operator. eircom has indicated that they consider the market for the provision of DQ services to be effectively competitive and as a consequence the labour element of these costs should not be subject to regulation. ComReg would welcome respondents' views on this assertion and its consequences.

Q. 111. Do you consider the market for the labour element of DQ services to be effectively competitive and therefore not suitable for ex-ante regulation? Please provide evidence to support your answer.

8 Regulatory Impact Assessment

- 8.1 The Ministerial Direction (issued by the Minister for Communications Marine & Natural Resources in accordance with S13 of the Communications Regulation Act, 2002) published in February 2003, directs:
- 8.2 “The Commission before deciding to impose regulatory obligations on undertakings in the market for electronic Communications or for the purposes of the management and use of the radio frequency spectrum or for the purposes of the regulation of the postal sector, shall conduct a Regulatory Impact Assessment in accordance with European and International best practice and otherwise in accordance with measures that may be adopted under the Government’s Better Regulation programme.”
- 8.3 ComReg is obliged by the Framework Regulations to impose an obligation on undertakings with significant market power⁵³. ComReg is obliged further to impose obligations listed in Articles 9 to Article 13 inclusive of the Access Directive⁵⁴ which are as follows:
- Obligation of Transparency
 - Obligation of Non-discrimination
 - Obligation of accounting separation
 - Obligation of access to, and use of, specific network facilities
 - Price control and cost accounting obligations
- 8.4 ComReg is obliged under Article 8(4) of the Access Directive to impose obligations ‘ based on the nature of problem identified, proportionate and justified in the light of the objectives laid down in Article 8 of 2002/21/EC (Framework Directive)
- 8.5 ComReg believe the market analysis process is a comprehensive review of the sector under consideration and is approximate to a regulatory assessment as considered by the Ministerial Direction quoted in 8.1 above.
- 8.6 ComReg, taking account of its obligations under Section 13 of the Communications Act 2002 and the Directives and Regulations of the New Regulatory Framework, believes the remedies listed in Section 6 are proportionate and justified.

Q. 112. Respondents are asked to provide views on whether the remedies in Section 6 are proportionate and justified and offer views on what factors ComReg should consider in completing its Regulatory Impact Assessment in terms of the impacts of these remedies on end-users, competition, the internal single market and technological neutrality, having regard for the different stages of development of market players.

⁵³ Article 16.4 states ‘Where a national regulatory authority determines that a relevant market is not effectively competitive, it shall identify undertakings with significant market power on that market. and the national regulatory authority shall on such undertakings impose appropriate specific regulatory obligations...’

⁵⁴ Article 8(2) of Access Directive.

9 Submitting Comments

- 9.1 All comments are welcome; however it would make the task of analysing responses easier if comments were referenced to the relevant question numbers from this document.
- 9.2 The consultation period will run from 22nd October to 6th December 2004 during which ComReg welcomes written comments on any of the issues raised in this paper.
- 9.3 ComReg appreciates that many of the issues raised in this paper may require respondents to provide confidential information if their comments are to be meaningful. Respondents are requested to clearly identify confidential material and if possible to include it in a separate annex to the response. Such information will be treated as strictly confidential.
- 9.4 Having analysed and considered the comments received, ComReg will review the implementation of remedies in the wholesale fixed interconnection markets and publish a report on the consultation which will inter alia summarise the responses to the consultation.
- 9.5 In order to promote further openness and transparency ComReg will publish the names of all respondents and make available for inspection responses to the consultation at its Offices.

Annex A – Consultation Questions

Q. 1. Do you agree with the scope of ComReg’s review of the interconnection market? Please elaborate on your response.	11
Q. 2. Do you agree with the product market definition of the market for wholesale call origination services? Please elaborate on your response.	21
Q. 3. Do you agree that the relevant geographic market for wholesale origination services is Ireland? Please expand in your response.	22
Q. 4. Do you agree with the above preliminary conclusions on market definition for wholesale call termination services? Please expand in your response.	31
Q. 5. Do you agree that the relevant geographic market for wholesale termination services is Ireland? Please expand in your response.	32
Q. 6. Do you agree that the wholesale transit market should be defined to include self-supply? Please expand in your response.	36
Q. 7. Do you agree that there is a single relevant market for fixed wholesale transit services that encompasses all fixed networks in Ireland? Please expand in your response.	36
Q. 8. Do you agree with ComReg’s preliminary conclusions concerning international transit services? Please expand in your response.	39
Q. 9. Do you agree with ComReg’s preliminary conclusions concerning the market definition for wholesale call transit services? Please expand in your response.	39
Q. 10. Do you agree that the relevant geographic market for wholesale transit services is Ireland? Please expand in your response.	40
Q. 11. Do you agree with the above preliminary conclusions regarding the market definition exercise? Please provide a reasoned response.	40
Q. 12. Do you agree with the preliminary conclusions regarding the market analysis of the wholesale call origination market? Please provide a reasoned response.	48
Q. 13. Do you agree with the preliminary conclusions that each fixed network operator has SMP in the wholesale market for call termination for calls to end-users on its fixed public telephone network? Please provide a reasoned response.	56
Q. 14. Do you agree with the preliminary conclusions that eircom should be designated as having SMP in the multi-network wholesale fixed market for call termination for calls to service providers? Please provide a reasoned response.	56
Q. 15. Do you agree with the above preliminary conclusions regarding market analysis in the market for wholesale transit services on the fixed public telephone network? Please provide a reasoned response.	63
Q. 18. Do you agree that, on its own, the application of a transparency obligation would not remedy the problems identified in this market? Do you agree that transparency, and in particular the requirement to make public interconnection terms and conditions, is a necessary remedy to problems actual and prospective in this market?.....	73

- Q. 19. Do you agree that eircom should publish a Reference Interconnect Offer containing details of access to facilities already granted? Please detail your response. 74
- Q. 20. Do you agree that eircom should publish specified information which supports call origination services? Please detail your response. 74
- Q. 21. Do you agree that eircom should be required to publish appropriate manuals and documentation for new and existing Call Origination services? Please detail your response..... 75
- Q. 22. Do you agree that eircom should publish a Reference Offer for Call Origination services on its wholesale website? Please detail your response... 75
- Q. 23. Do you agree that the current processes that apply to the publication of eircom’s RIO should be maintained for call origination services? 75
- Q. 24. Is there any additional information which eircom should provide to ComReg or industry or both to further support products and services in the RIO? Please support your answer with details..... 75
- Q. 25. Do you agree that eircom should be required to provide itemised billing for call origination services? If you agree please indicate in what format this should be provided in order to provide the level of detail required to reconcile bills to a satisfactory level i.e. soft copy versus hard copy, whether it should be monthly/quarterly. If possible please also provide an approximation of the typical cost of providing this service and how this should be recovered.
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- Q. 28. Do you agree with ComReg’s proposal to require eircom to interconnect networks or network facilities? Please detail your response..... 79
- Q. 29. Do you agree that eircom should be required not to withdraw access to facilities already granted, save without prior ComReg approval which would only be granted following public consultation? Please detail your response... 79
- Q. 30. Do you agree with ComReg’s proposal to require eircom to provide specified information which supports existing call origination services and to continue to provide such services in accordance with existing terms and conditions and specifications ? Please detail your response. 80
- Q. 31. Do you agree that eircom should have an obligation to meet reasonable requests for access? Please detail your response. 80
- Q. 32. If you believe that eircom should be required to answer reasonable requests for access for call origination, are there specific wholesale products or features or additional associated facilities not currently offered in the eircom RIO that should be provided by eircom? Please provide details of such products and why their inclusion in the RIO would remedy competition problems in this market..... 80
- Q. 33. Do you agree that eircom must provide call origination services on terms which are fair, reasonable and timely? In addition do you agree with ComReg’s proposal that these terms and conditions should be supported by Service Level Agreements and compensation payments? Please detail your response. 81
- Q. 34. Do you agree that eircom should provide access to and information necessary for access to call origination services to competitors at least

equivalent times and standards as it provides to its retail arm? Please detail your response. 81

Q. 35. Do you agree that eircom should provide call origination services on an unbundled basis as part of its Access obligation? Please detail your response. 81

Q. 36. Do you agree that eircom should be required to grant open access to technical interfaces, protocols, or other key technologies and systems and should also be required to provide access to such OSS or similar software necessary to ensure fair competition in the provision of services? Please detail your response. 82

Q. 46. Do you agree with ComReg that transparency is desirable and proportionate and therefore an appropriate obligation to impose on OAOs in this market? If no, please elaborate. 95

Q. 47. Do you agree that in addition to transparency, it is necessary to apply a non-discrimination obligation in this market? If no, please elaborate. 95

Q. 48. Do you agree with ComReg’s proposal not to impose an obligation of accounting separation on OAOs operational in this market?..... 95

Q. 49. Do you agree that on its own the application of a transparency obligation alone would not remedy the problems identified in this market? Do you agree that transparency, and in particular the requirement to make public interconnection terms and conditions, is a necessary remedy to problems actual and prospective in this market? Please detail your response. 96

Q. 50. Do you agree that eircom should be required to publish a Reference Offer containing details of access to facilities already granted? Please detail your response. 96

Q. 51. Do you agree that eircom should publish specified information which supports call termination services? Please detail your response. 97

Q. 52. Do you agree that eircom should be required to publish appropriate manuals and documentation for new and existing Call Termination services? Please detail your response. 97

Q. 53. Do you agree that eircom should publish a Reference Offer for call termination services on its wholesale website? Please detail your response. . 97

Q. 54. Do you agree that the current processes that apply to the publication of eircom’s RIO should be maintained for call termination services? Please detail your response..... 97

Q. 55. Is there an additional information eircom should provide to ComReg or industry or both in relation to products and services provided in the RIO? Please support your answer with details. 98

Q. 56. Do you agree that eircom should be required to provide itemised billing? If you agree please indicate in what format this should be provided in order to provide the level of detail required to reconcile bills to a satisfactory level i.e. soft copy versus hard copy, whether it should be monthly/quarterly. 98

Q. 57. Do you agree that eircom should also be required to provide call termination information and services on a non-discriminatory basis to its retail arm and alternative operators? Please detail your response. 99

Q. 58. Do you agree that eircom’s downstream arms should have the same access to eircom wholesale as alternative operators? Please detail your response. 99

Q. 59. Do you agree that eircom should be required to apply a standard process for the development and introduction of new call termination services and elements? Please detail your response. 99

Q. 60. Do you agree that an access obligation for Call Termination services should be imposed on eircom pursuant to Regulation 13? Please provide details in support of your answer 101

Q. 61. Do you agree with ComReg’s proposal to require eircom to interconnect networks or network facilities? Please detail your response.... 101

Q. 62. Do you agree that eircom should be required not to withdraw access to facilities already granted, unless it obtains the prior approval of ComReg to withdraw such access and with such approval to be granted by ComReg following public consultation? Please detail your response..... 101

Q. 63. Do you agree with ComReg’s proposal to require eircom to provide specified information which supports existing call termination services? Please detail your response..... 102

Q. 64. Do you agree that eircom should have an obligation to meet reasonable requests for access? Please detail your response. 102

Q. 65. Do you agree that eircom should be required to provide call termination services on terms which are fair, reasonable and timely? In addition do you agree with ComReg’s proposal that these terms and conditions should be supported by Service Level Agreements and compensation payments? Please detail any your response. 102

Q. 66. Do you agree that eircom should be required to provide an unbundled call termination services as part of its access obligation? Please detail your response. 103

Q. 67. Do you agree that eircom should provide access to and information necessary for access to call termination services to competitors at equivalent times and standards as it provides to its retail arm? Please detail your response. 103

Q. 68. Do you agree that eircom should be required to grant open access to technical interfaces, protocols, or other key technologies and should also be required to provide access to such OSS or similar software necessary to ensure fair competition in the provision of services? Please detail your response. 103

Q. 71. Do you agree that any new interconnect termination services provided by eircom to OAOs should be subject to the same price control obligations as existing services? Please detail your response. 107

Q. 72. Do you agree that ComReg should consider moving towards the application of a wholesale price cap for call termination conveyance rates? Please provide definitive explanations with your answer. 108

Q. 73. Do you believe eircom should have an obligation of accounting separation in the call termination market? Please elaborate on your answer.

Q. 74. Do you agree that the obligations listed above are appropriate obligations to impose on eircom in the market for wholesale call termination for calls to service providers? Please elaborate on your answer. 109

Q. 76. Do you agree that on its own the application of a transparency obligation would not remedy the problems identified in this market? Do you agree that transparency, and in particular the requirement to make public interconnection terms and conditions, is a necessary remedy to problems actual and prospective in this market? Please detail your response. 112

Q. 77. Do you agree that an obligation of transparency should be imposed on eircom? Please detail your response. 112

Q. 78. Do you agree that eircom should be required to publish a Reference Offer containing details of access to facilities already granted? 113

Q. 79. Do you agree that eircom should be required to publish the services that fall within the call origination, the eircom call termination and transit markets in the same format as they are published in the current RIO? Please provide a detailed response. 113

Q. 80. Do you agree with ComReg’s proposal to require eircom to publish one reference offer for three markets - call origination market, eircom call termination and transit? 113

Q. 81. Do you agree that eircom should publish specified information which supports transit services? Please detail your response. 114

Q. 82. Do you agree with ComReg’s proposal to require eircom to publish specified information relating to the call origination , the eircom call termination and transit markets in a standard suite of documents comprising its Reference Interconnect Offer ?..... 114

Q. 83. Do you agree that eircom should be required to publish appropriate manuals and documentation for new and existing Transit services? Please detail your response..... 114

Q. 84. Do you agree that eircom should publish a Reference Offer for Transit services on its wholesale website? 114

Q. 85. Do you agree that the current processes that apply to the publication of eircom’s RIO should be maintained for transit services? 114

Q. 86. Is there information eircom should provide to ComReg or industry or both? Please support your answer with details..... 115

Q. 87. Do you agree that eircom should be required to provide itemised billing? If you agree please indicate in what format this should be provided in order to provide the level of detail required to reconcile bills to a satisfactory level i.e. soft copy versus hard copy, whether it should be monthly/quarterly. 115

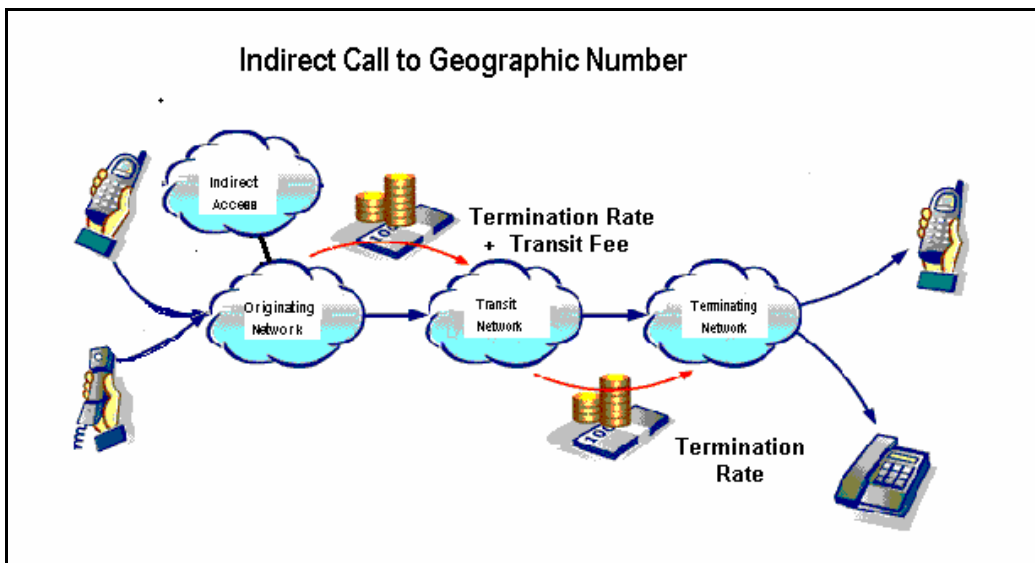
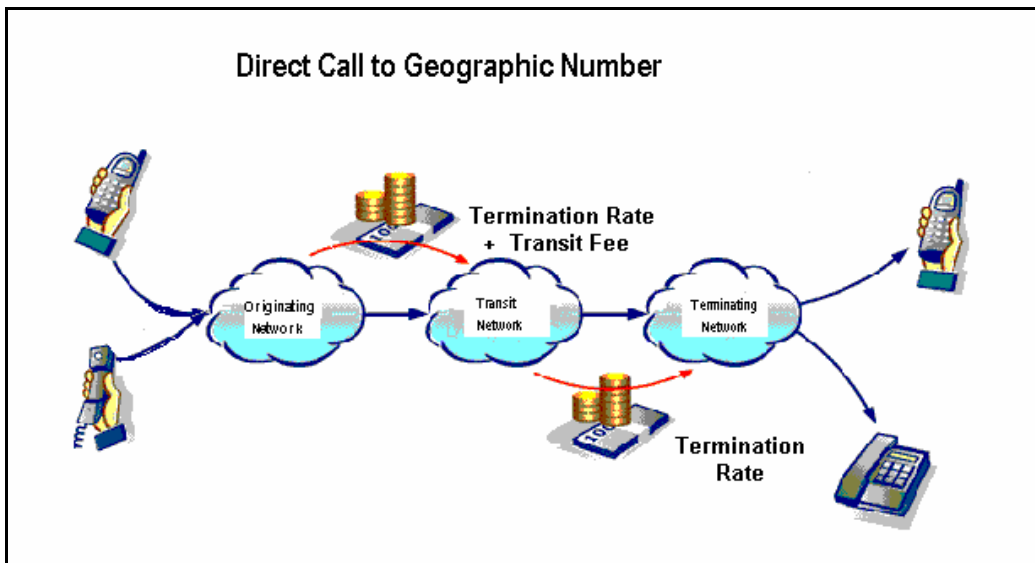
Q. 88. If itemised billing is introduced how should any additional costs incurred in providing this service be recovered?..... 115

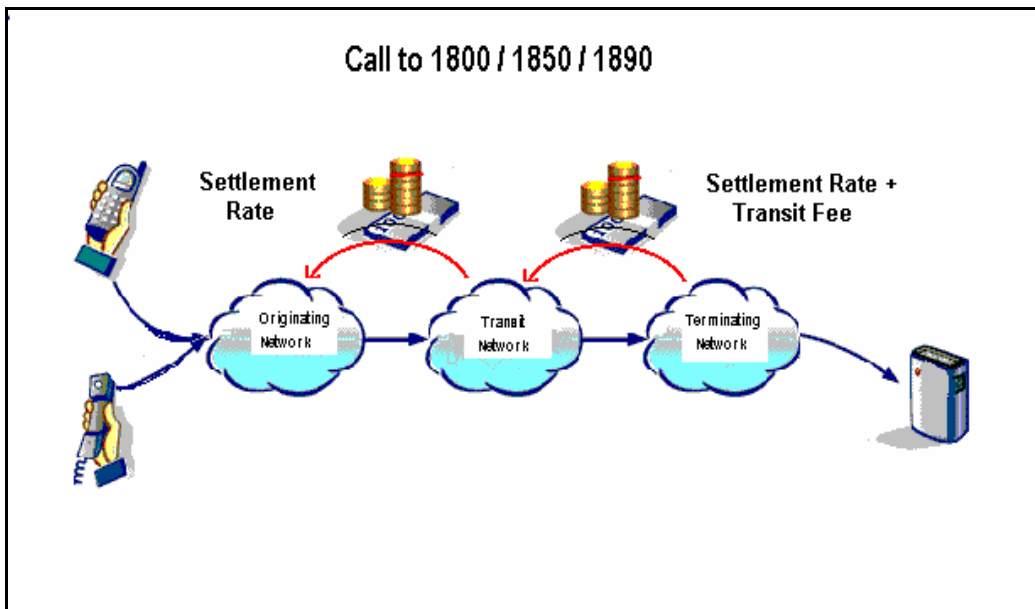
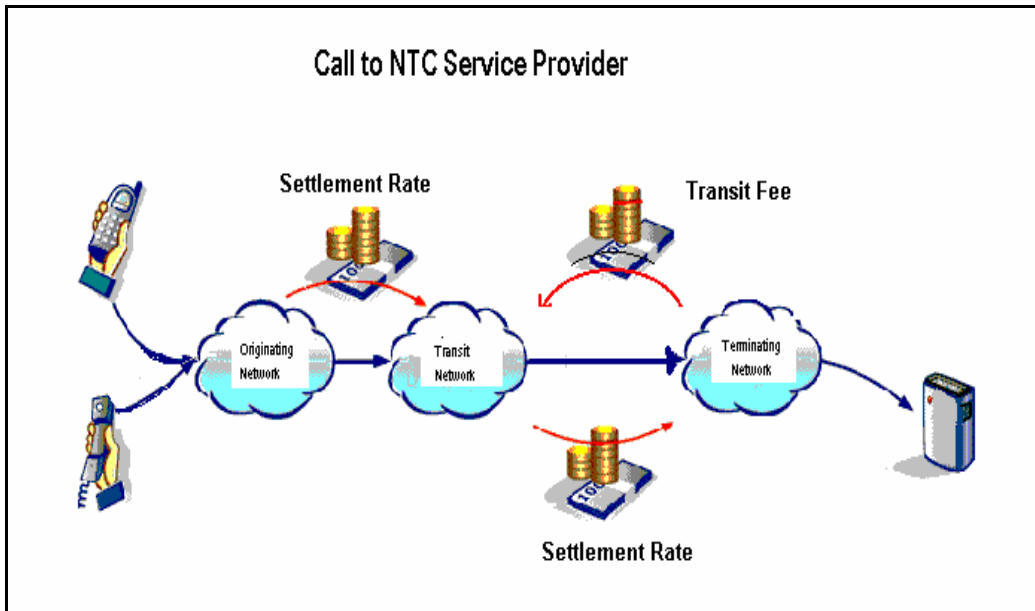
Q. 89. Do you agree that eircom should also be required to provide transit information and services on a non discriminatory basis to its retail arm and alternative operators? Please detail your response. 116

Q. 90. Do you agree that eircom’s downstream arms should have the same access to eircom wholesale as alternative operators? Please detail your response. 116

- Q. 91. Do you agree that eircom should be required to apply a standard process for the development and introduction of new transit services and elements? Please detail your response..... 116
- Q. 93. Do you agree with ComReg’s proposal to require eircom to interconnect networks or network facilities? Please detail your response.... 118
- Q. 96. Do you agree that eircom should have an obligation to meet reasonable requests for access? Please detail your response. If you believe that eircom should be required to answer reasonable requests for access for transit, are there specific wholesale products or features or additional associated facilities not currently offered in the eircom RIO that should be provided by eircom? Please provide details of such products and why their inclusion in the RIO would remedy competition problems in this market. ... 119
- Q. 97. Do you agree that eircom must provide transit services on terms which are fair, reasonable and timely? In addition do you agree with ComReg’s proposal that these terms and conditions should be supported by Service Level Agreements and compensation payments? Please detail your response. 119
- Q. 98. Do you agree that eircom should provide unbundled transit services as part of its Access obligation? Please detail your response..... 120
- Q. 99. Do you agree that eircom should provide access to and information necessary for access to transit services to competitors at equivalent times and standards as it provides to its retail arm? Please detail your response. 120
- Q. 100. Do you agree that eircom should be required to grant open access to technical interfaces, protocols, or other key technologies and should also be required to provide such OSS or similar software necessary to ensure fair competition in the provision of services? Please detail your response. 120
- Q. 101. Do you agree that eircom should be required to provide specified services needed to ensure interoperability of end-to end services to users? Please support your response with details. 120
- Q. 102. Do you agree that eircom should be required to provide such operational support systems or similar software necessary to ensure fair competition in the provision of services? Please detail your response 121

Annex B: Call Case Diagrams





Annex C: List of Operators with SMP in the Market for Termination of calls to end-users

ComReg is of the view that all authorised operators that provide fixed call termination services for retail calls to end-users on a fixed public telephone network within the timeframe of this review shall be designated as having SMP. The list below is a preliminary list of such operators but is not exhaustive and may change during the timeframe of the review.

- 1. Access Telecom**
- 2. Budget Telecom**
- 3. Cable & Wireless**
- 4. Chorus Communications**
- 5. Colt Telecom**
- 6. eircom**
- 7. Energis**
- 8. Esat BT**
- 9. MCI**
- 10. NTL**
- 11. Ocean**
- 12. Swiftcall Centre Ltd**
- 13. Talk Telecom**

Annex D: List of products for which eircom is mandated to give access to interconnection

Call Origination Services

Sev No.	Service Name
	<u>Eircom Services</u>
103	Call Origination
	<u>Operator Services</u>
205	Access to operator Premium Rate Services (15XX)
206	Access to operator Freephone Service (1800)
207	Access to operator LoCall Service (1890)
208	Access to operator Callsave Service (1850)
209	Access to Operator Universal Number Access (0818)
210	Access to Personal Numbering Access (0700)
221	Access to Operator Internet Service – 1891
222	Access to Operator Internet Service – 1892
223	Access to Operator Internet Service – 1893

Call Termination Services

Sev No.	Service Name
	<u>Eircom Services</u>
102	Call Termination
105	Access to eircom Premium Rate Services (15XX)
106	Access to eircom Freephone Service (1800)
107	Access to eircom LoCall Service (1890)
108	Access to eircom Callsave Service (1850)
109	eircom <i>Universal Number Access (0818)</i>
110	eircom <i>Personal Numbering Access (0700)</i>
111	eircom <i>National Directory Enquiries</i>
112	eircom <i>International Directory Enquiries</i>
113	eircom <i>National Operator Assistance</i>
114	eircom <i>International Operator Assistance</i>
115	Emergency Services (999 \ 112)
116	Packet Services Access
117	Paging Services Access
118	eircom <i>Customer Care Access</i>
119	International Access including Northern
121	Access to eircom Internet Service – 1891
122	Access to eircom Internet Service – 1892
123	Access to eircom Internet Service – 1893

Call Transit Services

Sev No.	Service Name
	<u>Eircom Services</u>
104	National Transit

Other non Conveyance Services

Sev No.	<u>Service Name</u>
	<u>Other Services</u>
	Payphone Access Charge
302	Data Amendments