



Office of the Director of  
**Telecommunications  
Regulation**

# **The Regulatory Framework for Access in the Mobile Market**

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Report on the Consultation

**Document No.** ODTR 00/53

**July 2000**

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# Executive Summary

## Overview

Having considered the responses to her initial consultation on the matter of access to mobile networks and other relevant information available to her, the Director has come to a number of conclusions.

The Director considers that the consultation responses generally support her view that access to mobile networks has the potential to stimulate greater competition in the mobile market by providing consumers with more choice and possibly lower prices.

The Director considers that the current legislative framework provides a basis for the commercial negotiation of access agreements and that there are no barriers to network operators concluding such negotiations. She strongly believes that mobile network operators should negotiate fair commercial agreements with qualifying organisations seeking to become potential alternative mobile access providers. In the event that there is failure of commercial negotiations the Director will, on a case by case basis, consider taking action in accordance with her powers, under dispute resolution or otherwise, to facilitate competition and ensure that the benefits of competition can be maximised for end users.

## 3G Mobile Telephony

The mobile market is set to grow further with the introduction of third generation mobile telephony networks and services in the near future. The Director has published a consultation document<sup>1</sup> which addresses, amongst other things, the design of the competition as it deals with access to both 2G and 3G networks. In designing the pre-qualification criteria the Director will consider whether it is appropriate to include a requirement for applicants to commit to providing some level of access to their networks and she will also consider inviting applicants to include in their applications offers of further levels and types of access which can then be marked on a comparative basis. Further information on these issues is available in the consultation paper which is available on the ODTR website: [www.odtr.ie](http://www.odtr.ie)

## Mobile Number Portability

The majority of the responses to this consultation stressed the importance of mobile number portability. This topic has also been raised in the context of shortage of mobile numbers<sup>2</sup> and is of course relevant in the context of 3G and is raised in the consultation paper on 3G (ODTR 00/52). At present the Director considers that there are clear advantages to introducing number portability in Ireland, particularly in the context of potential shortages of numbers. The Director therefore proposes to collate the responses to the three distinct consultations and conduct further internal study on

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<sup>1</sup> “Extending Choice.Opening the Market for Third Generation Mobile Services (3G)”, Consultation Paper; Document Number ODTR 00/52

<sup>2</sup> “Expansion of Mobile Numbering Capacity”; Decision Notice D5/00, April 2000; Document Number ODTR 0028

this matter, before making a final decision on this issue. A further report will issue on this in October.

If interested parties wish to make further comments on this topic beyond the scope of the three consultations held to date, submissions should be made, before **31<sup>st</sup> August 2000**. See section 3.4 for contact details.

In addition, given the importance of mobile number portability in the context of 3G services, the Director is considering requiring applicants for 3G licences to commit to introducing mobile number portability as a pre-condition for entry. Further detail is available in Document ODTR 00/52.

### **Airtime Resellers**

While the Director welcomes competition at the retail level she considers access to airtime by resellers is essentially a commercial issue for the operator concerned. This is particularly so as pure resellers do not require a telecommunications licence. Furthermore, she notes from the responses to this consultation that there is a general view that the benefits to consumers from simple resale are limited in nature and in duration. She does not therefore propose any regulatory action in relation to resellers. However resellers are free to negotiate commercial terms with mobile operators.

### **Indirect Access (“IA”) providers**

In order to provide indirect access it is necessary for potential IA providers to negotiate an interconnection agreement with one or more mobile network operators. In accordance with the interconnection regulations and directive, mobile operators with Significant Market Power in the mobile market<sup>3</sup> are obliged to negotiate interconnection with qualifying operators. In addition, mobile operators that have been designated as having SMP in the national market for interconnection<sup>4</sup> must provide interconnection on a cost oriented basis. Interconnection agreements may amongst other things, include provision for support of carrier select on a call-by-call basis.

The Director will issue short codes for call-by-call access to suitably qualified organisations for use in routing calls to Indirect Access providers.

Secondly, where commercial negotiations on interconnection fail, the Director will, in accordance with her functions, provide dispute resolution to ensure that appropriate interconnection is put in place that facilitates interoperability and maximises benefits to end users as speedily as possible.

Thirdly, the Director may consider undertaking further consultation on carrier preselection for mobile networks if;

- there is demonstrated demand for this service;
- she considers it will contribute to a competitive market;
- she considers it could provide benefits to users, or
- there is legislative or regulatory reasons to do so.

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<sup>3</sup> Currently Eircell and Esat Digifone

<sup>4</sup> currently Eircell

She is aware of the complexities and operational overhead of implementing carrier preselection on mobile networks and would take this into account in any further actions she may take.

### **MVNOs**

In order to operate as an MVNO, both interconnection and access to roaming services on mobile networks are required. The provisions in relation to interconnection as described above apply also in this case. Operators are also free to negotiate the roaming access required for the provision of service. Once again, the Director encourages parties who are interested in this form of access to commence commercial negotiations as quickly as possible. In the event that there is failure of commercial negotiations the Director will, on a case by case basis, consider taking action in accordance with her powers under dispute resolution or otherwise to facilitate competition and ensure that the benefits of competition can be maximised for end users.

In addition, as set out above, the Director is considering introducing measures in relation to roaming in the context of the forthcoming 3G licensing process. Further detail is set out in ODTR Consultation Paper 00/52.

### **Mobile Interconnection**

As already stated, mobile operators who have been designated as having significant market power on the national market for interconnection are obliged to provide interconnection at cost oriented rates. The Director is currently examining mobile interconnection rates in Ireland with reference to rates throughout Europe, as well as the various models and approaches available to quantify the costs of mobile operators in this context. Further work streams in this area will be announced as appropriate.

## 1. Introduction

The Director of Telecommunications Regulation (“the Director”) and her Office (“the ODTR”) are responsible for the regulation of the Irish telecommunications market in accordance with EU and National legislation. The ODTR is the National Regulatory Authority (“NRA”) for the purposes of that legislation.

In common with other European countries and in the context of the 1999 Communications Review<sup>5</sup>, the Director has consulted on the issue of competition in the mobile market and, in particular, the opportunities for increased tariff and value added service competition that might be provided by the introduction of independent service providers, indirect access providers, mobile virtual network operators (“MVNOs”) and airtime resellers in the Irish mobile market.

### 1.1. Background

In May 2000, the Office of the Director of Telecommunications Regulation (“ODTR”) launched a consultation process on the regulatory framework for access in the mobile market. The process involved the publication of a consultation document (ODTR 00/32) which looked at the issue under the following headings:

- The case for additional forms of access to the mobile network;
- An overview of independent service provision, looking at the various forms of access;
- A comparison with other European states;
- The issues involved in the regulatory framework;
- The structure of the Irish mobile market and its growth;
- Key consumer and regulatory issues.

The consultation paper sought views as to whether ex-ante regulatory action to mandate access to networks is required or whether access to the mobile networks should be dealt with on a case by case basis as requests arise.

The responses received to the consultation paper have been of assistance to the Director in helping her to form a view on appropriate regulatory measures in relation to access to the mobile market.

Thirteen organisations responded in writing to the consultation document, as listed below:

- Budget Telecom
- *eircom*
- Eircell
- Esat Digifone
- Forfás
- GTS

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<sup>5</sup> Communication from the Commission; The Results of the public consultation on the 1999 Communications Review and Orientations for the new Regulatory Framework. **Comm (2000)239final**  
[http://www.europa.eu.int/comm/information\\_society/publications/docs/index\\_en.htm](http://www.europa.eu.int/comm/information_society/publications/docs/index_en.htm)

- MCI WorldCom
- Meridian
- Meteor
- Mobile Net (Ireland)
- NTL
- Orange
- Société Européenne de Communication S.A.

The Director wishes to express her thanks to everyone who contributed to the consultation. With the exception of material marked as confidential, the written comments of respondents are available for inspection at the ODTR's office in Dublin.

## **1.2. Legislative Background**

### **1.2.1. Rights and Entitlements to negotiate Interconnection Agreements**

In the European Communities (Interconnection in Telecommunications) Regulations, 1998, S.I. 15 of 1998 ("the Interconnection Regulations"), specified organisations holding approval to operate and provide a telecommunications network (either fixed or mobile), voice or mobile telephony services or leased lines have a right to negotiate an interconnection agreement with any similarly qualified organisation. The regulations place an obligation on such organisations to negotiate an interconnection agreement.

An obligation to negotiate can only be waived temporarily at the discretion of the Director and only if there are suitable alternatives that are both technically and commercially viable and if the resources available to meet the request are insufficient.

### **1.2.2. Significant Market Power; Obligations**

The Director can designate organisations as having significant market power ("SMP") in a variety of telecommunications markets.<sup>6</sup> Both Eircell and Esat Digifone were designated as having SMP in the mobile public telephone and services market, whilst Eircell was also designated as having SMP in the national market for interconnection.

In summary the obligations on organisations that have been designated as having SMP in the mobile market include:

- the obligation to meet all reasonable requests for access to the network;
- the requirement to adhere to the principle of non-discrimination with regard to interconnection offered to others;
- the requirement to make available all necessary information and specifications on request to organisations considering interconnection;
- the requirement to provide copies of all interconnection agreements to the Director; and,

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<sup>6</sup> Decision Notice D15/00. ODTR Doc. No. 99/59



- the requirement to ensure the confidentiality of information received from an organisation seeking interconnection.

The additional obligations imposed on mobile operators that have been designated as having SMP in the national market for interconnection include;

- the requirement that charges for interconnection follow the principles of transparency and cost orientation.

### 1.2.3. The Director's Duties

The Director's role is to encourage and secure adequate interconnection in the interests of all users. In promoting economic efficiency and giving the maximum benefit to users, she must balance the needs of users for satisfactory communications with the need for a competitive market, whilst ensuring that Ireland is aligned with technical and regulatory developments elsewhere in the European Union.

The consultation paper on access in the mobile market raises the issue of market developments with implications for numbering, which is a resource under the control of the Director. This includes the allocation of E. 164 numbering resources, mobile network codes (MNC) required by prospective MVNOs and short codes for both indirect access providers and MVNOs. The Director can set out the conditions under which the allocation of these numbers will be made in accordance with her powers under the Interconnection Regulations.

### **1.3. Format of this Document**

This Decision Notice presents the outcome of the consultation. Specifically, this document:

- outlines the issues addressed by the consultation document;
- summarises the views provided by respondents;
- presents proposals for action both by the industry and the ODTR on each of the issues in the light of the consultation.

This report is structured along the same lines as the earlier consultation document. Each section is divided into three parts:

- A summary of the question posed in the consultation document, together with supporting context.
- A summary of the responses to the question.
- The Director's views on the issues.

Each section is then concluded by comments bringing the analysis together, accompanied by the Director's conclusions and planned next steps.

## **2. Irish mobile market analysis and the case for access**

### ***2.1. Summary of the Consultation Topic***

The consultation paper outlined the current situation in the Irish mobile market and the various options for access to the mobile network. It emphasised the Director's belief that extending access to mobile networks could serve to increase competition in the sector and also to encourage the development of a new range of services for consumers via fixed mobile convergence. In particular, the paper raised the question of whether or not to mandate access to mobile networks or the right to purchase airtime for resale. The situation elsewhere in Europe was described and the scope of the regulatory law under which access to mobile networks might be considered was set out.

Section 4 of the consultation paper gave the current state of the mobile market in Ireland, with two well-established operators having taken the penetration of mobile services to a figure close to 50%. A third licence is in the process of being issued. This penetration figure places Ireland on a par with the UK and Portugal and ahead of Germany, France and Spain, but behind the Nordic countries in terms of market development.

The consultation paper included some studies that suggested that the cost of mobile telephony in Ireland was high in comparison with other markets. The shortage of spectrum was highlighted as a barrier to entry and the question of whether the partial number portability currently in place in Ireland acts as a switching cost to consumers was posed

In questions 4.1 and 4.2, respondents were asked for their views on the analysis in the consultation paper regarding competition in the mobile market in Ireland and whether there were any other appropriate indicators that ought to be taken into consideration.

### ***2.2. Views of respondents***

Responses were divided into two broad categories. Firstly, a minority of respondents held that the Irish market was in actual fact suitably competitive and that there was no evidence of market failure, the test that was felt should be used to indicate the need for regulatory intervention. This side of the argument was expressed in a variety of ways. The common theme was that the simple fact that there were only two established mobile operators in the country did not in itself mean that there was not sufficient choice or competition for the consumer. The following factors appeared most frequently in support of this point of view:

- the penetration of mobile subscribers in Ireland has almost reached 50%;
- a wide range of services and tariff packages are available;
- facilities based competition has been a reality since early 1997;
- there are two prominent and well established mobile operators, whose market shares are converging;

- a third GSM operator has been licensed and is expected to be operational before the end of the year; and
- there was an expectation of further market entrants emerging once the third generation mobile licence procedure was completed.

The most common view among the minority group was that the regulator should give market forces the opportunity to resolve the question of competition before intervening.

In response to the data from the Philips Tarifica study given in the consultation paper, this group produced various statistics to demonstrate that the Irish consumer gets as good a deal as consumers in many other countries with higher penetration, more operators and more service providers. Certain respondents felt that the data on pricing in the consultation paper was flawed and submitted statistics that substantiated their own arguments. This point was also reiterated by one of the respondents that broadly agreed with the view that competition needs to be enhanced. They felt that any comparison between international markets had to be very difficult given the different competitive characteristics that exist.

The imminent market entry of Meteor was a factor that these respondents felt needed to be considered. Concern was raised for Meteor's prospects in light of an extension of the market. An opinion was expressed that the timing of the study into access in the mobile market would be better held once the impact of the third operator had been evaluated. Others also referred to the forthcoming third generation mobile licences. They argued that this would mean up to nine discrete networks operating in Ireland. These moves were seen as providing more than adequate competition.

A few of these respondents were satisfied that the partial number portability currently offered has achieved virtually all the benefits of full number portability. This allows a subscriber to keep the same customer number whilst changing their access code. They did not see this as an obstacle to subscribers moving from one mobile network to another.

A single respondent suggested that although there are currently signs of market failure, this is a transient phase. The launch of the Meteor service and the allocation of 3G licences would stimulate competition to an acceptable level.

The second category comprised the majority of respondents. These held that there was insufficient competition in practice in the mobile market. Points made most commonly to support this view were as follows:

- A duopoly does not constitute a competitive market;
- High tariff offerings indicate a lack of effective competition;
- Competition currently exists around marketing initiatives rather than prices and services;
- The difference between prepaid and post-paid tariffs was thought to be excessive;

- The substantial divergence of termination rates (low by EU standards) from the retail call rates (high by the same measure) was reckoned to be a sure indicator of a lack of competition;
- Incumbents earn a return on capital employed that is unrelated to costs.

Whilst some of these respondents simply agreed with the analysis in the consultation paper, several criticised the pricing structure of the incumbents. There was a strong feeling that the current situation, rather than being a competitive market, is in fact a very tight duopoly, justifying regulatory intervention. If the incumbents were prepared to enter into commercial negotiations for access to the mobile network, respondents felt that this would avoid the need for regulation, however in their experience this was held to be extremely unlikely.

The partial number portability that is currently offered was held to be manifestly inadequate and not a practical substitute for the full version that allows the subscriber's E.164 number to be 'ported' intact to another network. It currently poses "no credible threat to migrate customers between networks" according to one respondent.

### **2.3. Position of the Director**

#### **2.3.1. Competition in the Market**

Having considered the responses, the Director believes that there is scope for further competition in the Irish mobile market. This is not least an unavoidable consequence of the necessity to limit the number of licences due to availability of frequency spectrum. This is borne out in other markets, for example, the UK where Oftel, in their study into competition in the UK mobile market, was unhappy at the level of competition in a mobile market which, with four well established mobile operators, can arguably be held to be more competitive than Ireland.

The Director notes the growth in penetration of mobile telephony which has been significant, however it is arguably not so much a consequence of a highly competitive market, but more as a result of the utility provided by mobile services. She also notes the argument that the introduction firstly of a third operator and later of 3G licensees will introduce further competition. This is indeed welcome and the Director intends to progress the regulatory framework for 3G licensing as quickly as possible.

However, in the current situation, with only two operators in a market, it is generally acknowledged that there is a very real risk of collusion in the setting of prices, with one party signalling its intentions to the other either intentionally or simply as part of the normal dynamic of such a market. This could allow both parties to earn supernormal profits.

#### **2.3.2. Pricing Information**

The Director notes the comments concerning the findings in the Philips Tarifica study. These figures were included to reflect the scope that the Director feels exists for lower tariffs for the end user. The Director hopes that there is scope for improvement in tariffs and tariff packages both to consumers and to service providers.

### 2.3.3. Mobile Number Portability

The Director's views on mobile number portability are set out separately in section 3 below.

### **2.4. Conclusion**

The Director concludes that the consultation responses generally support her view that access to mobile networks has the potential to stimulate greater competition in the mobile market and realise potentially substantial benefits to consumers by providing more choice and possibly lower prices.

The Director considers that the current legislative framework provides a basis for the commercial negotiation of access agreements and that there are no barriers to network operators concluding such negotiations. She strongly believes that mobile network operators should negotiate fair commercial agreements with qualifying organisations seeking to become potential alternative mobile access providers. In the event that there is failure of commercial negotiations the Director will, on a case by case basis, consider taking action in accordance with her powers, under dispute resolution or otherwise, to facilitate competition and ensure that the benefits of competition can be maximised for end users.

## **3. Number Portability**

### **3.1. Summary of the Consultation Topic**

The consultation document indicated that the absence of full mobile number portability might be an obstacle to the development of competition, as any number change is a switching cost faced by users. Respondents were asked whether they agreed with the analysis set out in the consultation document.

### **3.2. Views of Respondents**

A few respondents were satisfied that the partial number portability currently offered has achieved virtually all the benefits of full number portability. This allows a subscriber to keep the same subscriber number whilst changing their access code. They did not see this as an obstacle to subscribers moving from one mobile network to another.

However, the majority of respondents indicated that they supported mobile number portability. They felt that the current partial number portability is inadequate and not a practical substitute for the full version that allows the subscriber's E. 164 number to be 'ported' intact to another network. They believed that the current partial portability is a barrier to the migration of customers between networks.

### **3.3. The Director's Position**

The Director recognises that the absence of full mobile number portability might be an obstacle to the development of further competition. Mobile number portability offers the opportunity to subscribers who value their number highly to change networks without changing numbers. This can result in cost savings to the subscriber and also potential cost savings to those who call the subscriber. Cost-benefit analyses conducted elsewhere have indicated that mobile number portability offers a net economic benefit.

If full mobile number portability is introduced, the existing relationship between operator and access code will no longer be supported. However, the Director considers that as mobile penetration and the number of operators increases in Ireland, the absence of mobile number portability and the continued use of partial portability will cause an increasingly ineffective and inefficient use of numbering capacity. Left to continue, a change in subscriber number length from 7 digits to 8 digits would be required within 18 months for all existing users (based on information supplied by the existing operators). The timely introduction of full mobile number portability would remove this requirement for a number change. The removal of the number change requirement for existing users would bring additional cost-benefits.

The above analysis is consistent with the European Commission's most recent draft proposal for a Directive covering user's rights relating to electronic communications networks and services<sup>7</sup>, which provides for extending the obligation of number portability to mobile operators. It is not expected that this Directive will be transposed

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<sup>7</sup> COM (2000) 392, 12 July 2000, Proposal for a Directive of the European Parliament and of the Council on Universal Service and User's Rights Relating to Electronic Communications Networks and Services.

into national law for sometime. However, several EU member states have already mandated mobile number portability through their domestic legislation to further encourage competition.

### **3.4. Director's Conclusions and Next Steps**

Given the likely competitive and economic benefits, the expected European legislative requirement and the additional numbering benefits particular to Ireland, the Director considers that an early implementation of mobile number portability can provide considerable consumer benefit.

Mobile number portability has been raised in the context of shortage of mobile numbers in the recent consultation on the expansion of mobile numbering capacity. It is of course also relevant in the context of 3G and is raised in the Consultation Paper 00/52 . The Director therefore proposes to collate the responses to the three distinct consultations and conduct further internal study on this matter, before making a final decision on this issue. The study will include, inter alia, the limitations on the current mobile numbering space, the costs and benefits of mobile number portability, the alternative options and the implementation tasks that are required to bring mobile number portability into operation in Ireland. A further report will issue on this in October 2000.

If interested parties wish to make further comments on this topic beyond the scope of the three consultations held to date, submissions should be made, before **31<sup>st</sup> August 2000**, to:-

Mr. Kevin Curley,  
The Office of the Director of Telecommunications Regulation,  
Abbey Court,  
Irish Life Centre,  
Lower Abbey Street,  
Dublin 1

or by e-mail to [curleyk@odtr.ie](mailto:curleyk@odtr.ie)

In addition, given the importance of mobile number portability in the context of 3G services, the Director is considering requiring applicants for 3G licences to commit to introducing mobile number portability as a pre-condition for entry. Further detail is available in the 3G Consultation paper.

## 4. Key Consumer and Regulatory Issues – General Principles

The consultation paper set out the Director’s goal to improve price, choice and quality for the Irish mobile consumer. The paper sought views on the benefits that various forms of service provider might bring to consumers.

### 4.1. Views of respondents

A small number of respondents could see no additional benefits accruing to the consumer from airtime resellers, indirect access providers or MVNOs. A disbenefit mentioned by one party was that the tendency for indirect access providers to seek out opportunities for arbitrage would drive the incumbents towards a single tariff per call. This group all pointed to the indirect access providers as a threat to the stability of the market, as they were felt to be interested only in leveraging short term arbitrage opportunities and not in contributing to the growth of the market.

However, the strong majority opinion was that there are tangible benefits to be gained by the consumer, with the benefits to consumers being lowest from airtime resellers and increasing for indirect access, with the greatest advantages coming from MVNOs. A temporal dimension was also suggested, with airtime resellers only providing short term benefits to consumers, whilst although indirect access providers will bring broader competitive pressures to bear on prices, they too would only have short term opportunities. The MVNO was felt to have longer term potential because of their capability to innovate on products and services. All access types were seen as providing downwards pressure on prices and customer service was felt to be a key area where new entrants might aim to excel. The comments of respondents are summarised in Table 1 which follows.

Access type	Consumer advantages	Disadvantages
Airtime resellers	<ul style="list-style-type: none"><li>• Increased choice</li><li>• Better prices</li></ul>	<ul style="list-style-type: none"><li>• Less price flexibility</li><li>• Poor service flexibility</li><li>• Uncertainty</li></ul>
Indirect Access providers	<ul style="list-style-type: none"><li>• Increased choice</li><li>• Better prices</li><li>• Value added services</li><li>• Quality of service</li><li>• More secure future (than airtime resellers)</li><li>• Fixed mobile convergent services</li></ul>	<ul style="list-style-type: none"><li>• Cumbersome to operate</li><li>• Multiple bills</li><li>• Unable to compete fully with MNOs</li></ul>



MVNOs	<ul style="list-style-type: none"> <li>• True choice</li> <li>• Competitive pricing</li> <li>• Increase in value added services</li> <li>• Quality of service</li> <li>• Single point of contact</li> <li>• Single bill</li> <li>• Physical network platform</li> <li>• Improved coverage</li> <li>• Convergent services</li> <li>• More stable environment</li> </ul>	<ul style="list-style-type: none"> <li>• Could depress investment</li> </ul>
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**Table 1 – Summary of main advantages and disadvantages of alternative mobile access types**

#### **4.2. Position of the Director**

Some respondents held that the mobile market is currently fully competitive. If that were the case, then the introduction of further competitors in the form of indirect access providers or MVNOs, or indeed resellers, should not adversely affect the market. In a fully competitive market, those operators that are efficient will survive.

Some respondents have expressed concern that indirect access providers would use arbitrage to undercut existing retail prices. However, the Director’s view is that there is no reason why new entrants should not adopt a different pricing strategy from that adopted by existing players. If the introduction of indirect access providers leads to charging in a different fashion, with possibly no handset subsidy and lower call charges, this provides additional choice to the consumer. If this structure favours particular market segments, then this approach is to be welcomed.

The Director notes that many respondents felt that increased access to the mobile market will lead to an improvement in the nature of service packages, lower tariffs and better customer service. She believes that the consumer wishes to see the range of benefits given here being available in the mobile market.

#### **4.3. Director’s Conclusions and Planned Next Steps**

##### **4.3.1. Airtime Resale**

While the Director welcomes competition at the retail level she considers access to airtime by resellers is essentially a commercial issue for the operator concerned. This is particularly so where pure resellers do not require a telecommunications licence. Furthermore, she notes from the responses to this consultation that there is a general view that the benefits to consumers from simple resale are limited in nature and in

duration. She does not therefore propose any regulatory action in relation to resellers. However resellers are free to negotiate commercial terms with mobile operators.

#### 4.3.2. Indirect Access Provision

Parties wishing to provide services using indirect access require interconnection with one or more mobile network operators. As set out in section 1, all mobile network operators are obliged to negotiate with qualified parties seeking interconnection. The nature of the interconnection sought will depend on the type of indirect access services that the third party wishes to provide. As with the fixed network, indirect access can be provided using either carrier select or carrier pre-select. Carrier select involves the use of a short code on a call by call basis for access and is a relatively straightforward process. Carrier pre-select involves the automatic identification of the indirect access subscriber by the mobile network operator and the subsequent routing of calls via the indirect access network and may raise complex implementation issues.

In both cases the indirect access may be available for all calls or be restricted to certain categories e.g. international calls.

It is the Director's position therefore that in the first instance, where commercial negotiations on interconnection fail, she will, in accordance with her functions, provide dispute resolution to ensure that appropriate interconnection is put in place that facilitates interoperability and maximises benefits to end users as speedily as possible.

Second, the Director will issue short codes for call-by-call access to suitably qualified organisations for use in routing calls to MVNOs or Indirect Access providers.

Third, the Director may consider undertaking further consultation on carrier preselection for mobile networks if:

- there is demonstrated demand for this service;
- she considers it will contribute to a competitive market;
- she considers it could provide benefits to users,
- or there is legislative or regulatory reasons to do so.

She is aware of the complexities and operational overhead of implementing carrier preselection on mobile networks and would take this into account in any further actions she may take.

#### 4.3.3. MVNOs

The Director agrees with the majority of respondents regarding the potential benefits that MVNOs can bring and further believes that these benefits will become increasingly significant with the advent of 3<sup>rd</sup> generation mobile services.

MVNOs also require interconnection with mobile networks and the provisions in relation to interconnection as described in relation to Indirect Access Providers apply also in this case. However, call origination and termination to or from an MVNO also requires the ability to use the air interface of the mobile network which is likely to entail a form of roaming. Operators are free to negotiate the roaming access required for the provision of service.

Once again, the Director encourages parties who are interested in this form of access to commence commercial negotiations as quickly as possible. In the event that there is failure of commercial negotiations the Director will, on a case by case basis, consider taking action in accordance with her powers, under dispute resolution or otherwise, to facilitate competition and ensure that the benefits of competition can be maximised for end users.

In addition, as set out above, the Director is considering introducing measures in relation to roaming in the context of the forthcoming 3G licensing process. Further detail is set out in the ODTR Consultation Paper 00/52.

## **5. Choice and quality**

Questions 5.2.1, 5.2.2, 5.2.3 and 5.2.4 explored the impact of alternative access providers on existing products and services, the emerging convergent services and future services. Views were sought on the type of organisation likely to seek to take advantage of greater access to mobile networks.

### **5.1. Views of respondents**

#### **5.1.1. Relative merits of different categories of access**

Respondents saw airtime resellers as the simplest form of access type. They have no control or say in the routing of calls. Indirect access is slightly more sophisticated in that providers are able to specify the routing of outgoing calls. Indirect access does not impact upon incoming calls. The subscriber number is in a range belonging to the mobile network operator. Mobile virtual network operators usually have their own mobile network code, issue their own SIM cards and allocate subscriber numbers from their own range. They control the routing of both outbound and inbound calls and are therefore the most sophisticated type of alternative access provider.

Most respondents referred to the differences between the various access types as a scale of complexity and opportunity, starting with airtime resellers at the bottom, through to indirect access provision, with MVNOs at the top. They saw this scale as representing a gradual increase in choice to the consumer, together with increasing competitive pressure for lower tariffs and improved service bundling, better value added products and services, a higher quality of service and more opportunity for convergent services. Some respondents felt that the same scale also applied to the stability of alternative access types. Indirect access providers were seen by several respondents as only likely to be in the market for a short time to take advantage of arbitrage opportunities that would not endure. MVNOs were held to be more stable and thus likely to remain in the market for the longer term.

#### **5.1.2. Impact on Products and Services**

The impact of new forms of access to the mobile market on products and services also produced a range of opinions.

A small number of respondents questioned whether with the proposals suggested in the consultation would result in any improvement on the current position. It was suggested that there may even be a negative impact in that choice would be restricted, compatibility issues could hinder progress and that technology upgrades might be slowed.

#### **5.1.3. Convergent Services**

The view of the nature of convergent services varied substantially. At one end of the scale is the view that subscribers would be able to receive a single bill for all their telecommunications services, both fixed and mobile. At the more complex end of the scale is a vision of innovative services with a common look and feel irrespective of the access type. One respondent felt that the question on convergent services was unnecessary as they already exist in Ireland. Another thought that it would become more difficult with new access providers, whilst another felt that the issue was not about convergence between fixed and mobile networks, but between mobile networks and the Internet. This group of respondents felt that the type of organisation likely to

be attracted by mobile market entry would depend upon the terms on which entry was made. They saw the optimal position being for the establishment of commercial agreements. This would produce the most efficient new entrants. If regulatory intervention were used to facilitate entry, they felt that there was a risk of attracting short-term opportunist companies who would distort the market and not provide any lasting added value to the consumer.

#### 5.1.4. Choice and Innovation

In contrast, most of the respondents were clear that independent service provision would produce a greater choice for consumers. One respondent made the point that in a truly competitive market, players have to innovate to survive. The range of new services that could be introduced was felt to be very limited for airtime resellers, somewhat improved for indirect access providers and (with the aid of intelligent network and other value added platforms) virtually limitless for MVNOs. Most made the point that in order to provide fixed mobile convergent services, a service provider had to have access to both fixed and mobile networks. Without access to the mobile networks, convergence would never happen. A view expressed was that existing mobile operators have access to the fixed network at present (referring to how much easier it was to become a fixed network operator than a mobile network operator), whilst fixed network operators do not have the same freedom of access to the mobile network. One respondent felt that fixed mobile convergence would not be relevant once 3G mobile networks are operational, as they would reduce the reliance of consumers on fixed networks.

Respondents supplied a variety of services that they felt could be offered by the different types of access provider. They are listed in Table 2, which follows:

<b>Airtime Reseller services</b>	<b>Indirect Access services</b>	<b>MVNO services</b>
<ul style="list-style-type: none"> <li>• Simple voice at discounted rates</li> </ul>	<ul style="list-style-type: none"> <li>• Indirect access voice services</li> <li>• Real-time detailed bill enquiries</li> <li>• Partial FMC</li> <li>• Flexibility on airtime rating</li> <li>• Mobile originated intelligent network services</li> </ul>	<ul style="list-style-type: none"> <li>• A full range of voice services</li> <li>• Short messaging</li> <li>• WAP</li> <li>• Voice and Faxmail</li> <li>• Personal Numbering</li> <li>• Location dependent information services</li> <li>• Customer controlled call routing</li> <li>• Real-time detailed bill enquiries</li> <li>• Mobile Office</li> <li>• Unified Messaging</li> <li>• m-Commerce</li> <li>• Advanced information services</li> <li>• Full convergence of bills, single number services, Internet, customer care</li> </ul>

		<ul style="list-style-type: none"> <li>Fully flexible pricing structures</li> </ul>
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Table 2 – List of services that each type of access provider can offer consumers

### 5.1.5. Organisations That May Seek Access

The type of organisations mentioned as being most likely to seek access to mobile networks are listed below:

- Fixed network operators
- Internet Service Providers
- Retail agents
- Consumer brand companies
- Foreign mobile network operators
- Foreign service providers
- Media companies
- Interactive service developers

### **5.2. Position of the Director**

The Director is pleased that the introduction of alternative mobile access providers is widely seen as offering a much wider range of choice to the consumer for products and services. This is one of the key drivers for increasing competition in the mobile market. She believes that MVNOs in particular may be able to compete very strongly with incumbent operators on the basis of product and service differentiation.

It is important that competition is not just limited to price as that is not a sustainable strategy for new entrants. Whilst such organisations can match and even exceed the range of mobile services offered by the incumbent mobile operators, the Director believes that new entrants will be able to tailor their service portfolio to certain market segments. For instance, fixed network operators may seek to offer the same user interface to subscribers for any given service, regardless of the access type used.

Extending access to mobile networks will inevitably provide a spur to convergent services as competition take effect and more organisations have access to mobile networks. Noting the statement by one of the respondents that innovation is the usual companion of competition, the Director considers that convergent services will form one of the main drivers for differentiation between service providers.

The Director is encouraged by the wide range of organisations thought to be potential market entrants. This is a positive indication of the potential interest and thus the potential for increased competition. The introduction of new ideas from companies not normally associated with the telecommunications industry is a welcome development.

## **6. Prices to consumers**

The aim of questions 5.3.1 and 5.3.2 was to solicit opinions on the impact on tariffs and mobile network termination rates.

### ***6.1. Views of respondents***

For alternative access providers to be successful, competition would need to focus on price. This was a universal view, with many respondents pointing to the public position of the third GSM operator, who has made such a commitment. Most respondents agreed that MVNOs had the potential to have the greatest impact on tariffs. One of the reasons given for this view was the longer-term perspective taken by MVNOs. This was in contrast to airtime resellers and indirect access providers who were widely felt to be more opportunistic or not in such a strong position to exert leverage. Some argued that the contribution of MVNOs to lower prices was only a theoretical position and that in practice, their introduction would dilute the incumbents' incentive to invest, leading to higher prices in the longer term.

Indirect access providers were seen by several respondents as a threat, in that they would be seeking to take advantage of short-term opportunities for arbitrage to offer lower rates to customers, but would not offer any lasting value to the market. On the other side of the argument, one respondent commented that opportunities for arbitrage were merely a sign of the market at work and not of market failure. This should not be a matter of concern unless the opportunities for arbitrage persist in the long run, when that may well indicate market failure.

The introduction of greater competition into the call origination market was widely thought to offer the prospect of lower prices. One respondent commented that in an overpriced market, there was plenty of scope for new entrants to compete on the basis of price. Indirect access providers were thought by some to have the chance to offer substantially reduced rates on call charges, whilst MVNOs would be in a position to offer discounted rates on a wider range of services, such as short messaging and voice mail retrieval.

The question of mobile termination rates attracted a variety of views. Several respondents pointed out that mobile termination rates in Ireland are among the lowest in the EU. Others pointed to the divergence between termination rates and retail rates, citing that as evidence of an uncompetitive market. Whilst some respondents felt that call termination rates might fall, particularly if MVNOs were introduced, several were concerned that the incumbents would actually increase mobile termination rates as a way of compensating for revenue lost elsewhere. One respondent opined that the incumbents had an incentive to raise termination rates, as alternative access providers are unable to compete on the delivery of calls to mobiles. Several respondents requested regulatory scrutiny to ensure that call termination rates were not raised unnecessarily.

One respondent also thought that increased competition in the market would bring down international roaming rates.

### ***6.2. Position of the Director***

One of the more obvious advantages of increased competition is the expectation of lower call tariffs. The Director would welcome this clear consumer benefit and sees a

further advantage of price competition in that it could provide an incentive for operators to become more efficient, spurring them to look at other ways of adding value to the consumer and thereby increasing revenues. The Director is not convinced by the argument that the introduction of alternative access mobile providers will reduce the incentive for mobile operators to invest and thus push up prices.

It may well be that airtime resellers, over time, can only offer a marginal advantage on cost. However, indirect access providers claim that they can offer substantially lower rates to consumers and MVNOs will be able to provide an innovative range of services and tariff packages. Whether there is a long term place in the market for these organisations or not, they may all play their part in making the Irish mobile market truly competitive and the Director welcomes their introduction. The Director believes that the opportunity for arbitrage in itself is not a threat to the market, as long as the size of the opportunity shows signs of declining in response to increasing competition.

Lower international roaming rates would also be greatly appreciated by the Irish consumer. However the Director observes that this is a benefit that requires organisations with a multi-national presence to be able to offer mobility to their subscribers.

### ***6.3. Director's Conclusions and Planned Next Steps***

In common with many of the respondents to the consultation, the Director acknowledges that mobile termination rates in Ireland are currently at the lower end of the EU range. Whilst the low termination rates are a natural consequence of the way the Irish mobile market has evolved, the Director would not expect to see any increase in termination rates in the event that the market is opened up to alternative access providers.

As already stated, mobile operators who have been designated as having significant market power on the national market for interconnection are obliged to provide interconnection at cost oriented rates. The Director is currently examining mobile interconnection rates in Ireland with reference to rates throughout Europe, as well as the various models and approaches available to quantify the costs of mobile operators in this context. Further work streams in this area will be announced as appropriate.



## **7. Obligations to provide access**

Respondents were asked in questions 5.4.1, 5.4.2 and 5.4.3 for their views on whether or not access should be mandated to the mobile network, which operators should be obliged to support it and whether there should be a time limit on mandatory access if it is introduced.

### ***7.1. Views of respondents***

Respondents were fairly evenly split over the question of mandating access to the mobile network. On one side were those that argued that the market should be left to develop itself, that there are strong incentives for operators to negotiate commercial agreements with companies seeking access to the mobile network and that regulatory intervention is only justified in the event of market failure. This group argued that there is no market failure at present. It was observed that there has been minimal regulatory intervention in the mobile market to date and the Director was cautioned against applying the same regulatory logic as had been applied to the fixed network. This, the respondent felt, would result in a distortion of the normal efficient outcome.

The counter argument was that regulatory action to mandate access to the mobile market was needed urgently. It was felt that market failure does exist in practice in Ireland and immediate action was needed to overcome the lack of competition in the market. One argument held that the mobile market in Ireland constituted an essential facility, which justifies the consideration of mandating access. Another view was that there was a need for regulatory intervention to ensure that there are incentives for further market entry. The same respondent felt that the mobile market exhibited many similarities with the Irish fixed market, where many of the bottlenecks that existed have been acted upon. This, they felt, was sufficient justification for regulatory intervention.

There were differing opinions on the operators that ought to be obliged to provide access, should it be mandated. Some respondents felt that all operators should be treated equally and one respondent felt that the obligation should be restricted only to an operator that is dominant. The remainder were of the opinion that the obligation should fall on those operators with significant market power.

A variety of opinions were supplied on the length of time for which any regulatory measures should apply. Some quoted figures of three or five years, and others felt the measures should be indefinite but the majority view was that the Director ought not to be overly prescriptive in this matter. It was felt that the Director should call for a review of the competitive situation after a period of perhaps two or three years to see whether the conditions were right for the regulatory measures to be lifted.

### ***7.2. Position of the Director***

The obligations imposed on operators that have been designated as having SMP in the mobile market are summarised in section 1 earlier. These include the obligation to meet all reasonable requests for access to the network. Those operators that have SMP on the national market for interconnection are subject to further obligations, namely to provide interconnection on cost – oriented terms.

The Director's preferred position is that parties will conclude commercial negotiations to allow access to their mobile networks and that regulatory intervention should not be necessary. However, she will intervene quickly to resolve disputes where such negotiations fail and to enforce the obligations set out in legislation.

In addition, she is considering addressing the requirement to provide access in the context of licensing 3G networks. Further detail is available on this issue in consultation document 00/52

### ***7.3. Director's Conclusions and Planned Next Steps***

Operators with significant market power in the mobile market are obliged under the interconnection directive to meet reasonable requests for access. They must offer non-discriminatory terms and make information and specifications available upon request to prospective interconnect partners. Operators designated as holding significant market power in the interconnect market must use a cost-oriented charge structure.

Interconnection includes all of the necessary terms and conditions reasonably required by the requesting operator, including the ability to handle and route calls using carrier selection. The Director will allocate short codes for this purpose to appropriately qualified parties wishing to interconnect with mobile networks.

MVNOs are able to control the routing of inbound calls as well as outbound calls. To do this, they require a Mobile Network Code, which will establish them as a discrete mobile network. The Director will investigate the demand for Mobile Network Codes and will put in place a framework that will allow suitably qualified organisations obtain such codes.

## **8. Terms and Conditions of Access**

Question 5.5.1 asked for views on the basis on which mandated access to mobile networks should be charged for all types of access.

### ***8.1. Views of respondents***

Those respondents voicing opposition to the idea of mandated access to mobile networks took the opportunity to restate their position in answering question 5.5.1 about the basis for access being charged. Of those respondents that chose to address the question directly, several referred to the efficient component pricing rule (ECPR), which they felt avoids the problems with marginal cost of not being able to recover fixed costs and allowing inefficient market entry. If it was felt necessary to mandate access, this group of respondents felt 'retail minus' pricing should be adopted. Many made the point that 'retail minus' was likely to be the basis upon which the commercial agreements for which they expressed a preference would be made. In the event of mandated 'retail minus' access pricing, no suggestions were made by this group of a level at which this should be set. One respondent mentioned retail minus 'avoidable' costs. Cost plus pricing was vigorously opposed by this group on the grounds that it would encourage inefficient market entry by companies seeking only to take short term advantage of arbitrage opportunities.

The group of respondents in favour of mandatory access to the mobile network was in favour of a move towards a cost based pricing system. Some felt that there would be problems in implementing such a system speedily and they urged haste in mandating access to the mobile network. Their view was that it was more important to mandate access to the mobile network than to implement cost based pricing from the start. Views were expressed that it would be difficult to obtain cost data. The justification for LRAIC (long run average incremental cost), plus a satisfactory return on capital was that this will create the conditions for dynamically efficient market entry. The counter argument to letting the market decide access rates by commercial negotiations was that there is a greater incentive for an incumbent to keep out competition than to expand the market and gain additional revenue through call conveyance. It was considered important that the payment for mobile operators carrying traffic for alternative access providers should cover their costs and allow them to make an acceptable return on capital employed.

### ***8.2. Position of the Director***

The Director considers that it is not unreasonable for mobile operators to make an adequate return on capital employed for carrying traffic for alternative mobile access providers and considers that any pricing method should take this into account.

Where commercial negotiations result in agreements, the basis for prices are a matter for the parties to the negotiation and the Director encourages parties to reach agreement in that context.

In relation to those costs arising from interconnection, the Director notes the obligations that are set out in current legislation, particularly the obligation on operators with SMP in the national market for interconnection to set cost oriented interconnection charges. In relation to the fixed market, the Director has clearly stated her preference that cost-oriented pricing be based on the LRAIC methodology.

### ***8.3. Director's Conclusions and Planned Next Steps***

The Director is currently examining mobile interconnection rates in Ireland with reference to rates throughout Europe, as well as the various models and approaches available to quantify the costs of mobile operators in this context. Further work streams in this area will be announced as appropriate.

## **9. Network Investment**

The final questions (5.6.1 and 5.6.2) were concerned with any impact on network investment of mandated access and how this might be negated or minimised.

### ***9.1. Views of respondents***

The views of respondents on the implications for network investment of mandated access were driven by their views on the suitability of such a move by the regulator. Those opposed to mandated access felt that only by reaching commercial agreements could there be an incentive for all parties to invest in infrastructure. One of the points raised was that the uncertainty caused by mandating access to the mobile network would increase risk and thereby increase the cost of capital. This group of respondents were certain that the effect of mandated access would be to depress network infrastructure investment. It was stressed that regulatory intervention, if not carefully chosen, could distort the market and provide an obstacle to investment. Concern was also expressed that the need to provide access to other operators would delay or make the implementation of new technologies more risky because of the stated need to ensure compatibility with alternative mobile access providers. The issue of network integrity and security was also brought up, with the implication that the new access providers would introduce a higher level of risk.

The counter view was that in a truly competitive market, there was a strong incentive to invest to survive. Innovation was seen as one of the key benefits of competition and innovation is synonymous with investment in this context. As long as operators offering access to the mobile network were able to earn an adequate return on their investment, it was widely felt that there would be no disincentive to invest in network infrastructure.

### ***9.2. Position of the Director***

The Director is not convinced by the suggestion that interconnecting with and/or providing access for alternative mobile access providers might introduce delays or complexity into the implementation of new technologies or platforms. The interconnect agreements which mobile operators are already obliged to negotiate and which the Director hopes will be freely entered into, should contain quality metrics and state the international standards that apply to all physical points of interconnect. Although the equipment to which the mobile operators will interconnect may be slightly different, there should be no more risk of a security breach or additional complications than when the operator interconnects to any other operator fixed or mobile. The same principles for interconnection will apply.

The Director also agrees that the incentive to invest will be based on the return on investment that can be earned by network providers, and this will be determined by the terms on which access is provided. If those terms include an adequate return on investment there should be no negative impact on investment.

## **10. Conclusion**

In conclusion, the Director would like to thank all parties who contributed to this consultation. The issues raised are wide ranging and comprehensive and she acknowledges that these issues are also raised in other consultation papers and documents, including those on mobile numbering and the current consultation on 3G licensing.

The conclusions and further actions identified in this paper will be carried out by the ODTR in parallel with those relevant work streams, but an overview of competition in the mobile market and the position of alternative mobile service providers and operators will be maintained so as to ensure that there are no unnecessary barriers to entry into the market by such providers.

The Director once again encourages parties to enter into and conclude commercial negotiations as quickly as possible and repeats her position that, in the event of failure of negotiations or undue and unnecessary delay, she will intervene to resolve disputes and encourage access to this market so as to maximise competition and the benefits to Irish telecommunications users.