



Commission for
Communications Regulation

Ofcom
OFFICE OF COMMUNICATIONS

Report of ComReg/Ofcom Joint Working Group

Cross-border telecoms issues

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Section 1

Executive Summary

- 1.1 The huge growth in the mobile phone market, in Europe and globally, and the greater availability and capacity of electronic data transfer systems in recent years has coincided in Ireland with post-conflict efforts to improve cross-border links.

In the area of mobile telephony the nature and length of the border between Northern Ireland and the Republic of Ireland mean that significant problems and costs are caused to users through inadvertent roaming to networks across the border.

Concerns about this issue have been expressed by consumer groups, business users and political representatives and there have been appeals to telecoms regulators in both jurisdictions to take action to improve the situation.

ComReg and Ofcom operate within the confines of National and EU Law. This limits the scope for regulatory action in this area.

Nonetheless, in response to these demands, ComReg and Ofcom agreed to set up a Joint Working Group (JWG) in April 2004 to investigate the extent of the problem and to recommend possible ways forward.

- 1.2 ComReg and Ofcom reviewed the existing research and commissioned new studies, both at the consumer and technical level, to establish the extent of inadvertent roaming and its effects on users. The Group met with the operators and encouraged them to take action to mitigate the effects and some limited progress has been made since these meetings, in particular from two of the UK operators, Orange and O₂. However the JWG noted that none of the operators has any all-island arrangements in place for pre-paid customers even though they make up the largest customer segment accounting for more than 2 out of every 3 customers in the UK and nearly 3 out of every 4 customers in the Republic of Ireland.

Voluntary moves towards implementing an all-island pricing structure by those MNOs best placed to take action on behalf of citizens and consumers as well as industry on both sides of the border would seem to offer the most promising long-term solution. In the meantime, consumers would benefit from more information and greater clarity about tariffs and about ways of dealing with inadvertent roaming.

- 1.3 The JWG also assessed the issue of cross-border data transfer. Research provided to the JWG, based upon the published prices of the incumbent operators, indicated that the costs of cross-border leased lines were substantially higher than comparative national leased lines, which it has to be said is generally consistent with incumbents' prices across Europe. There may be several reasons for this, including the cross-border network architecture model and its associated costs. Specifically, even for short cross-border hops, leased lines are routed through Belfast and Dublin as the international exchanges.

Evidence suggests that the incumbent's published price generally acts as the price ceiling in the market. Owing to competition the market price for the cross border services is likely to be lower than the incumbent's published price.

Some of the difficulties created by the existing network architecture could be overcome with cooperation between operators and the establishment of resilient cross-border links and interconnected points of presence on either side of the border. This could lead to greater diversity of supply and more competition. Discussions with stakeholders indicated that if efforts to grow commercial links between the two parts of the island do not lead to this investment in infrastructure, alternative sources of investment may need to be identified.

Recent initiatives by both governments have begun to improve the level of infrastructure and services and to address the lack of resilience of the telecommunications infrastructure in border areas. Furthermore, funding for four projects aimed at developing cross-border broadband and telecommunications links has now been approved under the Interreg IIIA programme.

- 1.4 A proposal to introduce a short code for dialling from Northern Ireland to the Republic of Ireland (along the lines of that already available the other way round) was considered by the Joint Working Group and will form part of its continuing agenda.
- 1.5 In response to calls from the commercial radio sector and others, the Group also built on existing arrangements (a) to share information about illegal radio stations profiting from the existence of the border by broadcasting from one jurisdiction while seeking listeners and advertising revenue from the other and (b) to co-operate in solving this problem.
- 1.6 The Joint Working Group will continue to examine live issues affecting consumers and businesses on both sides of the border, including: mobile roaming; data transfer; numbering; illegal radio transmissions; and the potential for joint provision of all-island spectrum licences.

Section 2

Introduction

- 2.1 The border between Northern Ireland and the Republic of Ireland raises some specific telecoms and spectrum issues for consumers and businesses in both jurisdictions.
- 2.2 In April 2004 ComReg Commissioners John Doherty and Isolde Goggin met with Stephen Carter, Chief Executive of Ofcom in London. This senior level meeting discussed, in particular, the issue of cross-border mobile roaming, where citizen-consumers travelling or living near the border between Northern Ireland and the Republic of Ireland often inadvertently roam onto networks originating in the Republic of Ireland while still in Northern Ireland, and vice versa, incurring international roaming charges in the process.
- 2.3 Accordingly, it was agreed to set up a working group to jointly investigate this issue, as well as the high costs of cross-border leased lines, illegal radio stations in border areas and the potential for all-island dialling codes. The aim was to seek solutions to these problems which, in the first instance, would be both market-driven and in the best interests of citizens and consumers in both jurisdictions.¹
- 2.4 The Group has held several meetings since its establishment in April 2004, in Belfast, Dublin and London, and its membership reflects the wide range of expertise on telecommunications and spectrum which exists within the two regulators. A full list of participants can be found in *Annex 1*.
- 2.5 Members of the Group have met with representatives of all the major telecoms companies operating in the two parts of the island. Several of them provided submissions to the Group.
- 2.6 The drivers for this initiative arise both from consumer/business demand and from public policy, some of which have been articulated separately in each jurisdiction and some jointly in both jurisdictions.
- 2.7 Additionally, this initiative is in line with the EU-wide policy of enhancing the single market, by identifying and seeking to address issues which affect consumers on both sides of the border in their everyday use of telecommunications services. The 1998 Belfast/Good Friday Agreement endeavoured to normalise relations between the two parts of the island and to encourage more commercial, administrative, cultural, educational and social links. In this regard, Ofcom and ComReg both have a responsibility to act in the interests of citizens and consumers.
- 2.8 Initially the Joint Working Group has concentrated on mobile roaming and data transfer costs, and therefore this report will highlight these two areas. The report also includes a summary of our discussions to date on all-island numbering and illegal radio stations.

¹ <http://www.comreg.ie/publications/default.asp?ctype=5&nid=101637>;
http://www.ofcom.org.uk/media_office/latest_news/nr1_20040517

Section 3

Cross-Border Mobile Roaming

- 3.1 The Joint Working Group first of all reviewed the information available on mobile roaming on both sides of the border.
- 3.2 Quantitative consumer research, commissioned by NIACT (the Northern Ireland Advisory Committee on Telecoms - the telecoms consumer body which was funded by Oftel) and carried out by Millward Brown in October 2003 indicated that 30% of the mobile phone users surveyed in Northern Ireland had inadvertently received Republic of Ireland networks instead of UK networks. More recent research conducted by Ofcom in 2004 suggests that this number has risen (see 3.10).

NIACT had been concerned about the high costs to consumers of cross-border mobile roaming for some time. These concerns have been reiterated by the General Consumer Council for Northern Ireland.

- 3.3 The Digital Island Initiative, which seeks to ensure the fullest exploitation of digital technologies by businesses across Ireland and is facilitated by InterTradelreland, was established in June 2003 by the Department of Enterprise, Trade and Investment (DETI) in Northern Ireland and the Department of Communications, Marine and Natural Resources (DCMNR) in the Republic of Ireland. Following its establishment Ministers made reference on various occasions to the need to establish all-island tariffs for mobile and data telecommunications.
- 3.4 On 30 March 2004 Dermot Ahern, the Minister at the Department of Communications, Marine and Natural Resources in the Republic of Ireland, issued a set of policy directions to ComReg (see *Annex 2*). There is a specific goal in relation to cross-border roaming. This goal is to minimise cross-border roaming and other charges on the island of Ireland for mobile phone users, particularly those who live close to the border.
- 3.5 Furthermore, on 19 May 2004, both Dermot Ahern and Barry Gardiner, Minister at the Department of Enterprise, Trade and Investment in Northern Ireland, issued a joint statement in which they welcomed the setting up of the Joint Working Group and expressed their concern about the continuing high costs of mobile tariffs and cross-border data transfer “which act as a barrier to all-island business and are an irritation to consumers.”
- 3.6 Research commissioned from Mason Communications by the cross-border trade organisation, InterTradelreland, on behalf of DETI and DCMNR suggested that the high costs of roaming, and specifically inadvertent roaming, caused great levels of dissatisfaction amongst users and was a significant inhibitor to the use of mobile phones while in other jurisdictions.
- 3.7 There have been several articles in the press, North and South, on the issue and a BBC **Brassed Off Britain** programme in May 2004 graphically illustrated the problems experienced by border residents in parts of Co. Armagh, where one man could only obtain a UK signal in his house by going up onto his roof.

- 3.8 During September 2004 a team from Ofcom, led by a Strategic Projects Manager from the Ofcom Monitoring Station, Baldock, and a Technical Investigation Officer from Ofcom, Northern Ireland, supported by an Engineer from ComReg, undertook a comprehensive technical survey of mobile coverage on a border route extending across both sides of the border. The survey's findings show a complex picture but provide hard evidence that inadvertent roaming is a feature on all networks on both sides of the border. Manual selection of a home network can prevent inadvertent roaming. However, there are areas along the border where the home network coverage does not provide an adequate signal to mobile phone users, thus forcing them to inadvertently roam in order to use their phones. This difficulty is exacerbated by the fact that handsets generally do not display which network they are 'locked onto' once they ring with an incoming call; in this instance the users do not know if they are inadvertently roaming or not. The full results of this survey can be found in *Annex 3*.
- 3.9 Ofcom conducted research to quantify cross-border network usage and awareness of and opinions about roaming charges amongst mobile customers in Northern Ireland. This research was conducted amongst a representative sample of adults in Northern Ireland during August 2004.
- 3.10 The research indicates that around four in ten (43%) mobile customers in Northern Ireland who were surveyed claim to have received a signal from the Republic of Ireland while in Northern Ireland. A third of these consumers used this signal (equating to around 180,000 mobile customers), and almost half (48%) of these were unaware of roaming costs.
- The research also suggests that any advice being provided to mobile customers in Northern Ireland regarding inadvertent roaming does not appear to be reaching them. The vast majority (90%) of consumers surveyed do not recall being provided with any advice on how to react when a roamed signal is picked up. Consumers would benefit from more information and greater clarity about tariffs and about ways of dealing with inadvertent roaming. The full results of the research can be found in *Annex 4*.
- 3.11 It has to be said that there seems to be a financial disincentive for the operators to change the current roaming situation. Roaming tariffs are normally higher than domestic tariffs, which means that operators receive greater revenue per call. Furthermore, compensation for extra costs incurred by inadvertent roaming is at the discretion of the operators.
- 3.12 The border between Northern Ireland and the Republic of Ireland is unusual in that it is based upon county, i.e. administrative, boundaries rather than topographical boundaries and this means that the border meanders a great deal, making it difficult for the mobile network operators to design their networks so that the radio signal effectively stops at the border. This increases the chances of inadvertent roaming taking place.
- 3.13 The topography in many places is quite hilly and in Northern Ireland population density is, for the most part, relatively low. Once the UK mobile network operators had achieved their original coverage targets (of 80% and then 90% of the UK in the early days of roll-out) there was little incentive for them to go for more than adequate levels of penetration along the border.

- 3.14 Furthermore, health and other 'scares' about mobile phone masts seem to have been particularly prevalent in these areas often making it difficult for operators to find suitable sites for transmission masts. (It is perhaps worth noting in this context that to date, nineteen Mobile Phone Mast Audits (Stewart Audits) have been carried out in Northern Ireland by the Radio Communications Agency, whose role has been taken over by Ofcom under the terms of the Communications Act 2003). Sixteen of these were at schools and three at hospitals.² All the emission levels recorded were found to be significantly below the levels set by the International Commission on Non-ionizing Radiation Protection (ICNIRP).

In 2003/04, ComReg arranged for the measurement of emission levels at 400 sites throughout the Republic of Ireland by Mason Communications. This project is now complete and there are four reports available on the ComReg website, with a separate site report available for each site.³ All the emission levels recorded were found to be below the levels set by the ICNIPR.

In addition, masts in Northern Ireland require full planning permission (unlike the rest of the UK) and consequently disquiet is perhaps more likely to be articulated by local people and their political representatives than is the case elsewhere in the UK. In the Republic of Ireland some masts require full planning permission but there are also some exemptions to the planning laws.

- 3.15 One operator, O₂ UK, has had particular difficulty in finding an alternative site to the one it has been using at a school (the Governors will not renew the contract because of the fears expressed by parents about the health risks to their children). It appealed to the Joint Working Group to investigate the possibility of it placing its transmitter on an O₂ Ireland site across the border to serve its Northern Ireland customers. This is currently under consideration.

The Group recognises that concerns about the siting of masts are genuinely held; it also recognises that people appreciate the economic and social benefits for their communities of modern mobile communications. It believes that better communication and constructive dialogue between MNOs and local communities and their representatives are the most likely way for agreed solutions to contentious issues to be reached.

- 3.16 Currently MNOs are rolling out 3G networks whereby enhanced services such as the rapid transfer of data and video conferencing can be offered to 3G consumers. To provide these enhanced services it is likely that more base stations will be required. Mast sharing between MNOs could facilitate both the roll-out of 3G and help improve coverage on existing networks by optimising the use of sites.
- 3.17 Taking all these factors into account, the Joint Working Group concluded that an all-island tariff would be the simplest and most effective means of addressing these roaming issues.
- 3.18 In the light of this, our approach was to invite all the Mobile Network Operators (MNOs), North and South, to meet with the Joint Working Group over a three month period. The aim was to facilitate an exchange of information and to outline the economic and public policy drivers behind the

² <http://www.ofcom.org.uk/static/archive/ra/rahome.html>

³ <http://www.comreg.ie/sector/default.asp?stv4=TSG&s=4&navid=179>

possible introduction of all-island tariffs. It was hoped to persuade one, if not all, of the operators to shift position on this matter.

- 3.19 The Group jointly met with those operators with a presence on both sides of the border (O₂/Vodafone/3) and individually, as ComReg and Ofcom, with those operators with a presence on one side of the border only (Meteor in the Republic of Ireland and Orange and T-Mobile in the UK). A full list of these meetings can be found in *Annex 5*.

The public policy perspective was articulated to all the MNOs, sometimes at the highest level. Even where MNOs were part of the same global organisation the existence of different operational and profit centres on opposite sides of the border seemed to us to act as a disincentive to co-operative action in the interests of consumers.

- 3.20 Following these meetings, two of the UK operators, O₂ and Orange, introduced offerings for their post-paid customers in Northern Ireland whereby they can avail of reduced roaming charges in the Republic of Ireland by signing up to specific add-on packages.

It should be noted that O₂ Ireland and Vodafone Ireland already had in place all-island tariff options for their post-paid customers in the Republic of Ireland.

- 3.21 A summary of the pricing arrangements for customers publicly available appears below. (Some of the operators, understandably, offer bespoke arrangements for businesses with contracts for multiple handsets).

O₂ UK customers can subscribe to an International Travel Service (ITS) at £2.99 per month, which reduces prices for calls both to Ireland, and from within Ireland to the UK. Frequent travellers can purchase an Ireland bolt-on for 99p per month, which reduces the prices to 25ppm for making calls and 18ppm for receiving a call as long as the customer is using an O₂ network. O₂ indicated to us that they intended to promote the Ireland bolt-on in O₂ retail shops in Northern Ireland, and would offer a free-for-life subscription for the bolt-on to all new and existing post-paid customers. All O₂ UK's business customers and higher spending post-paid customers receive the International Traveller Service free of charge.

O₂ Ireland offers a range of add-ons to their post-paid subscribers and every post-paid subscriber is entitled to one free add-on. O₂ Ireland offers an All-Ireland add-on where subscribers roaming in Northern Ireland pay no charge for receiving calls and pay between 22c and 32c for calls made to the Island of Ireland. In summary, with this add-on O₂ claims that calls cost the same both sides of the border. If a post-paid subscriber has not chosen this as their free add-on, there is a monthly service charge of €7.50. Various terms and conditions apply to this add-on, the details of which can be found on O₂ Ireland's website.⁴

Vodafone UK negotiates customised arrangements for businesses with a significant mobile pool; others can avail of a general bolt-on for reduced international calls at £2.50 per month, and an Ireland Caller offer (available on some, but not all business tariffs) for an additional

⁴ http://web.o2.ie/personal/tariffs/pay_monthly/all_ireland.jsp

£1 per month, which offers further discounts. These tariffs are only being sold through Vodafone retail stores and business sales teams in Northern Ireland and are not available to all customers. These tariffs are for contract customers only.

Vodafone Ireland offers post-paid customers an Ireland-Wide Tariff. For a monthly fee of €4 (excluding VAT) there is no roaming charge for receiving calls while roaming in Northern Ireland. Additionally, calls made to any 00 353 number while roaming in Northern Ireland are charged at the domestic rate. There are also a number of other terms and conditions attached to this tariff, the details of which can be found on Vodafone Ireland's website.⁵

Orange customers are advised to activate the manual network selection function on their handset in order to avoid inadvertent roaming. The Joint Working Group was informed that staff in their retail shops, particularly in border towns, actively draw the attention of new customers (who wish to have international roaming activated) to the risk of inadvertent roaming during the sales process and demonstrate how to activate manual network selection.

It has recently launched Orange Ireland Saver, an add-on to standard tariffs, which offers discounted retail roaming charges, but only to business users resident in Northern Ireland, for a monthly fee of £3. This reduces call charges to 24ppm for making calls when in the Republic of Ireland, to 5ppm for receiving calls in the Republic and to 12ppm for making calls from Northern Ireland to the Republic.

T-Mobile met a representative of the Joint Working Group and expressed reservations about providing a submission to the Group whilst discussions were still continuing on the implementation of the international co-ordination agreements between the UK and the Republic of Ireland for mobile spectrum.

3 met with the Joint Working Group, in both London and Dublin. Whilst it was sympathetic to the difficulties faced by mobile phone users in Northern Ireland and the Republic of Ireland it did not think it was appropriate to provide us with a formal response at the time for the following reasons. Although its 3G roll-out in Northern Ireland was underway, roll-out in the Republic of Ireland was still at an early stage. Furthermore 3 had not concluded its negotiations for a national roaming agreement in the Republic of Ireland at that time and, in any event, as a new entrant was likely to be dependent on third parties as far as cross-border roaming was concerned.

Meteor currently has no special tariff package in place to deal with inadvertent mobile roaming.

- 3.22 Costs of roaming vary considerably and impact particularly on consumers on pre-paid tariffs. From a Northern Ireland perspective information obtained in November 2004 indicated that pre-paid users could be paying up to six times the charges incurred by post-paid users when roaming.

⁵ <http://www.vodafone.ie/sme/travelling/costs/iwtariff/index.jsp>

None of the operators has any arrangements in place for pre-paid customers. This is the largest customer segment accounting for more than 2 out of 3 customers in the UK and nearly 3 out of 4 customers in the Republic of Ireland.

- 3.23 The MNOs were generally of the view that the question of an all-island tariff was a commercial decision that should be driven by the market.

O₂ and Vodafone, with operations in both the Republic of Ireland and Northern Ireland, would seem to be best placed to move on the issue and it has to be acknowledged that they do have special tariffs in place for post-paid customers, which can mitigate the high costs associated with inadvertent roaming.

However, it seemed to the Joint Working Group that there was an opportunity for the other MNOs to gain a competitive advantage by entering into joint arrangements on a cross-border basis in order to offer their customers an all-island tariff. Meteor has indicated that it is willing to discuss this possibility with one of the MNOs operating in Northern Ireland.

- 3.24 At the wider regulatory level the Joint Working Group took account of the range of relevant regulatory actions and decisions that have been taken to date. In the European Commission's Recommendation (Commission Recommendation 2003/311/EC) several markets have been listed where NRAs (National Regulatory Authorities) are recommended to assess the need for ex-ante regulation (*ex-ante* regulation is regulation which is put in place to prevent problems arising as compared to *post-ante* regulation which is taken to resolve an issue after the event). There are three wholesale mobile markets listed but no retail mobile market, since the Commission believes the retail mobile market should not be susceptible to ex-ante regulation. Additionally, the Commission has stated in its Explanatory Memorandum to the Recommendation that "*regulatory controls on retail services should only be imposed where NRAs consider that relevant wholesale or related retail measures would fail to reach the objective of ensuring effective competition*". Therefore, NRAs can only consider proposing regulatory interventions in the retail mobile market after several demanding conditions have been met.

- 3.25 In relation to the market analyses of the wholesale mobile markets conducted by Ofcom and ComReg, Ofcom has concluded that there is no SMP in the wholesale access and call origination market.⁶ ComReg, on the other hand, has recently notified the European Commission of its conclusion that Vodafone and O₂ have SMP in this market.⁷ ComReg is proposing to open the networks of these operators at the wholesale level to alternative service providers such as Mobile Virtual Network Operators (MVNOs). On the wholesale market for international roaming, this issue is currently being investigated at a European level by the European Regulators Group (ERG) - International Regulators Group (IRG), in which ComReg and Ofcom are active participants. Recently the NRAs in the ERG intensified their work in this area by jointly sending out a questionnaire on international roaming to MNOs in their respective countries. The Group aims to present some preliminary results of its work in May 2005.⁸

⁶ http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/discon1103.pdf

⁷ <http://www.comreg.ie/publications/default.asp?nid=101898&ctype=5>

⁸ http://erg.eu.int/doc/whatsnew/pr_10_12_2004_wir.pdf

Section 4

Cross-Border Data Transfer

- 4.1 At the April 2004 meeting between Ofcom and ComReg the cost of leased lines between Northern Ireland and the Republic of Ireland was also discussed, and it was agreed that this issue would be added to the Joint Working Group's agenda.
- 4.2 Research commissioned by InterTradeIreland from Mason Communications, and undertaken during the second half of 2003 on behalf of DETI and DCMNR, indicated that businesses in the Republic of Ireland typically paid more for cross-border leased lines than their Northern Ireland counterparts and that the costs of cross-border leased lines, based upon the published⁹ prices of the incumbent operators, were substantially higher than comparative national leased lines (sometimes by as much as 125%).

Evidence suggests that the incumbent's published price generally acts as the price ceiling in the market and that, owing to competition, the market price for cross-border services is likely to be lower than the incumbent's published price. Additionally, information in the '*Telecoms Price Development*' document¹⁰ published by the European Commission Directorates-General (DG) Information Society suggests that the trend across Europe, based upon incumbent operators' pricing, is for international leased lines to be more expensive than national ones.

It was a matter of some concern to the Group that these costs could be a disincentive to inward investment, particularly to companies considering setting up on both sides of the border.

- 4.3 As reported in 3.5, Ministers Ahern and Gardiner issued statements expressing concern at the detrimental effects of such costs on businesses, especially those operating in border areas.
- 4.4 Research undertaken by the Enterprise Strategy Group¹¹ in the Republic of Ireland has considered the issue of North-South infrastructure in general (e.g. telecommunications, roads, energy etc.). Its report came to the conclusion that the creation of North-South infrastructure would offer advantages to all parts of the island, particularly to exploit the significant economic development opportunities between larger cities and towns, such as between Letterkenny and Londonderry/Derry, Cavan and Enniskillen, Armagh and Monaghan and Newry and Dundalk. Specifically in relation to telecommunications, this report indicates that "operators should be encouraged to enhance cross-border telecommunications backbone networks to provide greater diversity of supply, competition and choice and to allow the entire island to benefit from Ireland's competitive international connectivity."

⁹ In that research, the Leased Line costs were calculated based upon the published prices of *eircom* and BT.

¹⁰

http://europa.eu.int/information_society/topics/ecom/doc/useful_information/library/studies_ext_consult/tariffrendsreport1998_2003final.pdf

¹¹ The Enterprise Strategy Group was appointed by the Tánaiste to prepare an enterprise strategy for growth and employment in Ireland up to the year 2015. Their report published on the 7th July 2004 can be found at the following link.

http://www.forfas.ie/publications/esg040707/pdf/esg_ahead_of_the_curve_full_report.pdf

4.5 The regulatory position in the UK and the Republic of Ireland is as follows:

In the UK, Ofcom has identified two different types of leased lines: those provided using traditional SDH¹² technology and those provided using alternative technologies such as Ethernet.¹³ BT has been designated as having significant market power (SMP) as regards provision of the following circuits:

- retail traditional leased lines of up to and including 8Mbit/s;
- wholesale traditional leased lines of up to 155Mbit/s; and
- wholesale alternative leased lines of all bandwidths.

A separate market was not identified for international leased lines as Ofcom took the view that an international leased line is formed of a part leased line in one country and a part leased line in a second country.

4.6 As a result of these findings of SMP, regulation has been imposed on BT including an obligation to provide wholesale leased lines at cost-oriented prices on a non-discriminatory basis and retail leased lines on a non-discriminatory basis. Some wholesale traditional leased lines are also the subject of a charge control. The availability of cost-based wholesale leased lines should therefore enable operators to create their own leased lines (including international leased lines) in competition with incumbent operators.

4.7 A separate market for international leased lines has not been identified in the UK and, therefore, no regulation *per se* has been imposed on these products. In order to establish clarity about the leased lines position in Northern Ireland Ofcom held meetings with leased line providers as well as with DETI, InterTradelreland and Mason Communications. A list of those meetings can be found in *Annex Six*.

4.8 In the Republic of Ireland, ComReg has recently issued its response to consultation and its notification to the European Commission on the market for retail international leased lines.¹⁴ As part of this market review, ComReg concluded that no single operator is dominant in this particular market and that the market is effectively competitive. ComReg is, therefore, proposing to remove the remaining obligations in this market and to allow market forces to operate.

4.9 *eircom* has a number of regulatory obligations in this market including the obligation to publish prices for retail international leased lines. ComReg believes that the removal of the obligations on *eircom* can stimulate greater price competition in this area.

4.10 The conclusions of the Joint Working Group are as follows:

The market for the provision of services for the transfer of data across the border is a relatively small one. The population of the Republic is 4 million

¹² Synchronous Digital Hierarchy: SDH leased lines are generally comprised of a tail segment and a core (trunk) segment, with the tail segment to the nearest local exchange generally being a dedicated fibre and the remainder of the circuit being dedicated capacity within the network. The trunk and tail segments form different markets but BT has been identified as having SMP in both.

¹³ Ethernet lines are generally dedicated fibre between two points that are not carried over a network.

¹⁴ <http://www.comreg.ie/publications/default.asp?nid=101902&ctype=5>

and that of Northern Ireland only 1.7 million. (In the case of Northern Ireland, the public sector accounts for an unusually high percentage of activity employing 35% of the workforce. The private sector, therefore, is not only small in absolute terms, but it is also made up primarily of small and medium sized enterprises.)

- 4.11 The existence of the border and the legacy of thirty years of conflict have meant that services on either side of the border have developed, in so far as they have developed at all, independently.
- 4.12 Low demand, and therefore low volume, has meant that on both sides of the border there has been relatively limited development of infrastructure and little incentive for competitors to the incumbents, BT and *eircom*, to establish their own networks outside the main conurbations. Recent initiatives on both sides of the border are improving this situation, see paragraph 4.20 and 4.21.
- 4.13 Furthermore, although there are infrastructural links between Northern Ireland and the Republic of Ireland, not least of which is NTL's fibre optic cable linking Dublin to a fibre optic ring in Northern Ireland, there were, until recently, no principal nodes or 'points of presence' near to the border.
- 4.14 This means that costly 'tails' are often necessary to link customers in small towns which, geographically, may be very close to each other eg. a circuit between a business in Newry and one in Dundalk needs to go via a 'tail' to the nearest principal node in Belfast, then from Belfast to a principal node in Dublin, and then via another 'tail' from Dublin to Dundalk.
- 4.15 The cost between principal nodes is relatively low but the 'tails' in this case are quite long, given that Newry and Dundalk are only 13.3 miles apart.
- 4.16 A 'point of presence' was established in the summer by BT in Derry/Londonderry. This has improved and reduced the cost of the city's links to Belfast but not, so far, in the other direction across the border towards Letterkenny in Co Donegal.
- 4.17 One possible solution for reducing the costs of cross-border data transfer is for more principal nodes or 'points of presence' to be established on both sides of the border. However, costs of digging and cabling are high, and telecoms operators will need to be convinced that they can make a return on their investment.
- 4.18 Alternative and cheaper technical solutions, in particular wireless links, or alternative sources of financing infrastructure may offer a solution to the problem.
- 4.19 In the meantime, there are some optimistic signs that the 'peace process' and attempts associated with it to develop cross-border trade are beginning to 'kick-start' demand and a mixture of both private and public investment into developing infrastructure has begun to have an impact on the take-up of services.
- 4.20 Recently, the Letterkenny area has seen the successful installation of the Letterkenny Metropolitan Area Network (MAN) and of ESB Telecom's fibre

link ¹⁵ between Letterkenny and Sligo. Companies in the Co. Donegal area had highlighted to the Joint Working Group the lack of resilience in the telecommunications infrastructure to Co Donegal and their concern that it could affect the long-term viability of their operations. The two recent developments outlined above appear to have addressed this issue.

At the launch of e-net ¹⁶, Pramerica, a company which employs 400 people in the Letterkenny area, stated that now that it had a broadband resource via its connection to the MAN provided via e-net, by esatBT, AT&T and ESBT, it would be able to secure its infrastructure and compete for further mission critical work in the future.

- 4.21 The Interreg IIIA programme recognises that the development of North-South communications infrastructure linkages will facilitate greater cross-border economic and social cooperation and more activity in the fields of education and research. DETI and DCMNR are joint Implementing Agents for this €7 million initiative for cross border broadband and telecommunications projects. 18 applications for funding have been received and four projects have been approved to date.¹⁷ Westernconnect Ltd has been appointed to manage the applications process and monitor the projects. Further information on specific projects can be found on its website.¹⁸

One recently agreed Interreg IIIa project was the award of a contract to Bytel to create a Tier1 broadband link between Dublin and Belfast to provide broadband services in Belfast, Craigavon, Armagh, Dundalk and Drogheda. The company may increase the number of towns serviced and is already proposing to include Monaghan. The intention is to provide the service on an all-island tariff basis with no cross-border or international charges for leased lines between ROI and NI. The project commenced on 8 November and the service should become available in the first location (Armagh) during the first quarter of 2005.

- 4.22 The Joint Working Group welcomes these moves and looks forward to them enabling the provision of direct interconnections across the border and the development of a more competitive market.

¹⁵ The development of ESB Telecom's Network was carried out under the auspices of the Irish Government's National Development Plan.

¹⁶ <http://www.e-net.ie/News/Taoiseach-e-netLaunchNovt04.htm>

¹⁷ http://www.detini.gov.uk/cgi-bin/get_builder_page?page=990&site=10&parent=99

¹⁸ <http://www.westernconnect.com>

Section 5

All-Island Numbering

- 5.1 The Joint Working Group discussed the potential for a short dialling code from Northern Ireland to the Republic of Ireland with both BT Northern Ireland and with Ofcom and ComReg colleagues working on numbering issues.
- 5.2 Currently, calls from Northern Ireland to the Republic of Ireland require the international dialling prefix **00 353**. However, historically fixed line calls to these numbers are charged at a national, rather than international, rate. Likewise, fixed line calls within border areas in both the Republic of Ireland and Northern Ireland are charged at local rates.
- 5.3 Callers from the Republic of Ireland can reach geographic numbers in Northern Ireland by using the National Destination Code **048** (as well as **00 44 28**) followed by the 8 digit local number. Although different to the **028** code used within Northern Ireland, this clearly indicates to consumers that calls to Northern Ireland are different, geographically and by cost (these calls are charged at a local/national rate), to those to the rest of the UK. (Callers using the international dialling code to reach Northern Ireland attract an international call rate.)
- 5.4 As both BT Northern Ireland and NTL already charge calls to the Republic of Ireland at local/national rates there would appear to be no economic incentive for introducing a short dialling code, although the continuing use of the international code from Northern Ireland to the Republic of Ireland may be discouraging growth by providing customers with the perception that the call will be charged at international rates. A short code, North to South, might remove this obstacle to market growth.
- 5.5 However, there are several barriers to introducing a short code, not least arising from the fact that the Republic of Ireland is a single jurisdiction, while Northern Ireland is but one geographic zone of the UK.
- 5.6 There are also significant numbering clashes between the Republic of Ireland and UK numbering schemes. The **028** code is the geographic code for Skibbereen in the Republic of Ireland, while it is the geographic code for the whole of Northern Ireland in the UK numbering scheme. Provision of a single access code (eg 048) followed by the internal Republic of Ireland number appears to be a more feasible option for Northern Ireland users. For instance, access from Northern Ireland to a Skibbereen number could be achieved by dialling 048- 28 XXXXXX, thereby saving 2 digits.
- 5.7 As an evidence-based regulator, in order to consider changes to the UK's numbering regulatory scheme, Ofcom would need to carry out research to ascertain consumer demand and a regulatory appraisal scheme, the results of which would need to demonstrate that the benefits to consumers of making this change outweigh the costs to the telecoms industry of the associated technical and marketing requirements. Ofcom would also need to consult on whether any new short dialling code should be limited to use when dialling from Northern Ireland, as opposed to elsewhere in the UK.

- 5.8 The Joint Working Group, therefore, proposes that the introduction of a short code for calls from Northern Ireland to the Republic of Ireland be considered within the context of its continuing joint work.

Section 6

Illegal Radio Stations

- 6.1 There are several illegal radio stations located in the Republic of Ireland transmitting into Northern Ireland. These often cause interference to those making legitimate use of frequencies allocated to them in Northern Ireland and target an advertiser base similar to that of licensed radio stations. By locating their transmitters in a jurisdiction other than that in which they broadcast unlicensed operators attempt to avoid the legal processes in both jurisdictions.

Of even greater concern is that these illegal radio transmissions have caused interference to landing systems at Northern Ireland's two major airports, Belfast City and Belfast International. Prompt action by ComReg on several occasions to stop such transmissions has helped avert potentially life-threatening situations. Both Ofcom and ComReg are committed to using all available means to pursue illegal radio stations.

- 6.2 This is also an issue of concern to the BBC and to commercial radio licensees in Northern Ireland.
- 6.3 The Joint Working Group provides a forum for the exchange of information about illegal operations. This has led to an increase in instances of illegal radio stations being raided and closed down. In all cases unlicensed equipment was seized and prosecutions are in train. In most of the cases the broadcasters returned to air, but it is anticipated that returns will be fewer and at greater intervals once the prosecution cases reach the courts. Ofcom has carried out an audit of all illegal radio stations in border areas and will continue to update this as new information becomes available.