



## Information Notice

### Mobile Gateway Usage in Ireland

<b>Document No:</b>	<b>11/14</b>
<b>Date:</b>	<b>01 March 2011</b>

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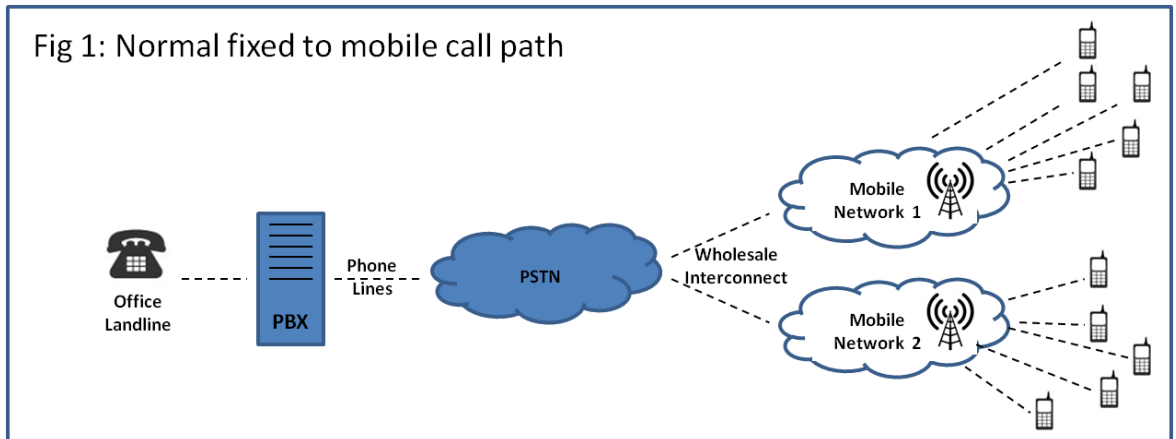
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## 1 Introduction

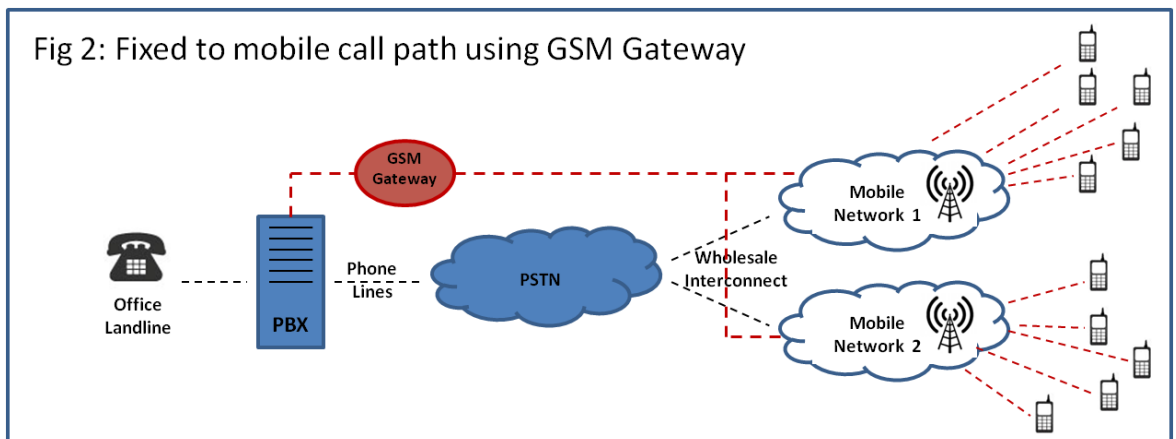
### 1.1 What are mobile gateways?

Mobile gateways, often referred to as ‘GSM gateways’, ‘SIM gateways’ or ‘Multi-cell fix to cellular (FCT) gateways’, are mobile terminals that have been adapted for use in a non-mobile environment. The gateway device contains one or more SIM cards to access one or more mobile networks. This enables calls from fixed telephones to mobile telephones to be routed directly into the relevant mobile network. The call appears to the mobile network to have originated from a mobile phone registered to that network and so will often attract a cheaper ‘on-net’ call rate than an ordinary ‘fixed-to-mobile’ call.

The traditional call path for a ‘fixed-to-mobile’ call is illustrated in figure 1 below where the call is routed to the fixed network and then terminated on the mobile network through a wholesale interconnection path.



When a mobile gateway is used the fixed network element is bypassed to avail of cheaper calls. This is illustrated in figure 2 below:



## 1.2 Mobile gateway configuration

Mobile gateways are typically mains powered devices with sockets to allow for the connection of standard fixed line telephony equipment for private use. They are often promoted for commercial use to business customers as a means to save money on calls from private fixed lines to mobile handsets. In the case illustrated in figure 2 above, the mobile gateway is connected to an enterprise PBX<sup>1</sup> and it is programmed to use the mobile gateway when the caller dials a mobile number.

## 1.3 Use of mobile gateways

### 1.3.1 Enterprise or private use

The incentive for using gateways by private individuals or enterprises has traditionally been to avail of cheaper calls by avoiding the higher charges of ‘fixed-to-mobile’ calls and exploiting the lower tariff of ‘mobile-to-mobile’ calls. Similarly, inbound calls from mobile phones can be completed via the mobile gateway if the ‘mobile-to-mobile’ rate is lower than the ‘mobile-to-fixed’ rate.

### 1.3.2 Authorised operator use

Mobile gateways could potentially be used by authorised fixed line operators as a link from their own networks to carry traffic destined for mobile networks. Such an approach may be attractive at the wholesale level to arbitrage the price differentials between on-net and off-net (or indeed transit) wholesale tariffs. The use of mobile gateways may also be attractive to avoid the capital costs and administrative burden of establishing a proper wired interconnection path. Such an approach would of course be subject to the requirements of the broader regulatory framework for authorised operators and to commercial negotiations between mobile gateway users and Mobile Network Operators (MNOs).

### 1.3.3 Impact of mobile gateways on mobile networks

The impact on mobile networks of using mobile gateways, in a private or small business environment, is minimal. When used by large businesses or by authorised operators carrying significant volumes of traffic, capacity issues could arise within the cell area that contains the mobile gateway. This could cause congestion and dimensioning issues for the management of the mobile network and could have a knock-on effect on other customers.

Other network issues that may arise include the possible incorrect presentation of Calling Line Identification (CLI) and the possible interference with call tracing/legal interception when required by law enforcement agencies, although with proper configuration these issues can be overcome.

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<sup>1</sup> PBX – Private Automatic Branch Exchange i.e. a private telephone switch.

## 2 Legal and Regulatory Background

### 2.1 European Context

There is no overarching European legislation or specific regulatory guidelines on the use of mobile gateways in Member States. The matter has been left to the discretion of the National Regulatory Authorities and most of them have not taken any further steps at a national level. Some regulatory interventions have occurred, mainly in order to address specific implications of mobile gateways such as licensing and spectrum usage, network planning and efficiency, legal interception, CLI identification and quality of service.

The use of mobile gateways across Europe was a subject of considerable debate from 2000-2005 because of the high levels of ‘fixed-to-mobile’ termination rates in Member States when compared to ‘mobile-to-mobile’ rates.

Since 2005 however, the debate on mobile gateways has declined. An EU Recommendation<sup>2</sup> to harmonise mobile termination rates at significantly lower levels across Member States by 2012, integration between fixed and mobile operators, and innovative pricing have all contributed to this decline.

### 2.2 ComReg’s 2003 Information Notice on GSM Gateway Usage

In 2003, ComReg issued an Information Notice<sup>3</sup> to clarify the regulatory environment within which mobile gateways may operate. This Information Notice noted that mobile gateways were exempt from licensing under the Exemption of Mobile Telephones Order<sup>4</sup> and therefore their use was not restricted.

ComReg also noted that the use of gateways as a proxy for a proper wholesale interconnection path within public communications networks could lead to reduced service quality, to incorrect presentation of Calling Line Identification (CLI) and to interference with call tracing/legal interception when required by law enforcement agencies – and accordingly, ComReg did not approve of such use.

These issues were raised, and ComReg’s position was framed, in the context of the previous General Telecommunications Licencing regime which has since been replaced by the 2002 EU regulatory framework, now itself to be amended by the 2009 EU regulatory framework. The latter is expected to be transposed into Irish law by 25 May 2011. ComReg considers that a short statement on the current (and future) legal position regarding mobile gateways could therefore be useful to the marketplace.

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[http://ec.europa.eu/information\\_society/policy/ecomms/doc/implementation\\_enforcement/eu\\_consultation\\_procedures/explanatory\\_note.pdf](http://ec.europa.eu/information_society/policy/ecomms/doc/implementation_enforcement/eu_consultation_procedures/explanatory_note.pdf)

<sup>3</sup> ComReg Doc No. 03/15

<sup>4</sup> The Wireless Telegraphy Act 1926 pursuant to S.I. 409/1997 (Exemption of Mobile Telephones) Order 1926

### **3 ComReg’s updated position on the use of mobile gateways.**

#### **3.1 Enterprise or private use of mobile gateways**

ComReg sees no barriers to the use of mobile gateways by private individuals or businesses provided that the equipment used complies with the essential requirements and other relevant provisions of the R&TTE Regulations<sup>5</sup>. In addition, the terms and conditions of any contracts, between a gateway user and the provider of the relevant electronic communications network and/or service, should be fully complied with at all times.

In the case of gateways with significant traffic levels, it would be very prudent to co-ordinate their introduction and use with the network operator(s) concerned.

#### **3.2 Use of mobile gateways by Authorised Undertakings**

ComReg does not impose any specific regulatory obligations on the use of mobile gateways by persons authorised to provide an electronic communications network or service. However, ComReg does expect such authorised undertakings to have reasonable regard for the need to ensure adequate quality of service, security, integrity and proper functioning of their networks.

More generally, mobile gateway use is subject to the requirements of the broader regulatory framework, insofar as it affects authorised undertakings, and ComReg considers that those undertakings are entitled to have reasonable terms and conditions of use in their commercial contracts regarding the use of gateways on their networks.

#### **3.3 Status of ComReg 03/15**

This Information Notice document (ComReg 11/14) now replaces ComReg 03/15, which is hereby withdrawn with effect from **01 March 2011**.

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<sup>5</sup> S.I. No. 240/2001 — European Communities (Radio Equipment and Telecommunications Terminal Equipment) Regulations, 2001.

## 4 Submitting Comments

Any comments regarding the contents of this Information Notice are welcome and must be received by 5pm on **Friday 01 April 2011**.

Comments should be submitted to Ms. Sinéad Devey at [sinead.devey@comreg.ie](mailto:sinead.devey@comreg.ie).

Please set out your reasoning and supporting information for any views expressed. So as to promote openness and transparency of the consultation process, ComReg will publish all respondents' submissions, subject to the provisions of ComReg's *Guidelines on the Treatment of Confidential Information*<sup>6</sup>. We would request that electronic submissions be submitted in an unprotected format so that they can be appended into the ComReg submissions document for publishing electronically.

### **Please note**

ComReg may conduct further communications where it considers it appropriate and/or necessary to do so.

ComReg appreciates that in response to issues raised in this paper some respondents may wish to provide confidential information in addition to other comments. As it is ComReg's policy to make all responses available on its web-site and for inspection generally, respondents are requested to clearly identify confidential material and place confidential material in a separate annex to their response. Such information will be treated in accordance with the provisions of ComReg's confidentiality guidelines referred to above.

In anticipation of possible correspondence on matters relating to the issues covered in this paper, ComReg hereby gives notice that it will publish all correspondence received in this regard, again subject ComReg's confidentiality guidelines referred to above.

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<sup>6</sup> ComReg document 05/24. Response to Consultation - Guidelines on the treatment of confidential information - March 2005