



Commission for  
**Communications Regulation**

## Response to Consultation

### Use of Mobile Telephony Interceptors in Ireland

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## **1 Foreword**

On behalf of The Commission for Communications Regulation (ComReg) I am pleased to present the results of the consultation paper 04/74 on “Use of Mobile Telephony Interceptors in Ireland”. I would like to thank the 17 respondents who provided a wide range of views. A summary of the responses is presented in this paper, together with ComReg’s consideration of those responses and our position on the issues.

ComReg understands the frustration and inconvenience that inappropriate and thoughtless use of mobile phones can cause in certain circumstances. In general ComReg is of the view that the inappropriate use of mobile phones is largely a behavioural issue which is best addressed through public education and improved public awareness of mobile phone etiquette. A possible solution in certain circumstances to the inappropriate use of mobile phones may be the installation of a mobile phone detector which alerts the user via an appropriate warning to switch off their phone.

Nevertheless, some institutions or public venues may consider that more active measures are required to prohibit the use of mobile phones in a specific environment. If it is essential to actually prevent mobile phone communication taking place then an interceptor base station may be the best solution, in which case the organisation concerned should seek to negotiate with mobile network operators for the installation of an interceptor base station.

Based on the consultation ComReg has decided to permit mobile network operators to install mobile phone interceptors as part of their licensed network if they wish to do so, subject to certain terms and conditions.

**John Doherty,  
Chairperson.**

## 2 List of Respondents

In total there were 17 responses received. ComReg would like to thank all of the respondents for their time and effort and for the valuable information provided. All responses were very welcome, giving ComReg a range of views – from mobile operators to hospitals and private individuals. The written comments of all respondents, except those marked “confidential”, are available for inspection at ComReg’s Offices in Dublin.

### Respondents:

- Aer Rianta (Director of Dublin Airport)
- Barry Mason
- Beaumont Hospital
- Dave Kelly
- David Corcoran
- Dome Telecom Ltd
- Irish Prison Service (part confidential)
- Jurgen Whyte
- Meteor Ireland
- North Eastern Health Board
- Omniplex Cinemas
- O<sub>2</sub> Ireland
- Portlaoise Prison
- Ronan Fennessy
- Theatre Forum
- Thomas Flood
- Vodafone Ireland

### **3 Introduction**

This paper clarifies ComReg's position on mobile phone interceptors based on the responses to Consultation Document 04/74 which addressed the issue of the use of mobile phone telephony interceptors in Ireland. The purpose of the consultation was to obtain views on whether it would be appropriate to allow mobile network operators to install interceptors in certain locations.

Mobile network operators may voluntarily install an interceptor at a specific locality as part of their licensed network on request of a third party under certain terms and conditions. ComReg would like to state clearly that it is not mandating the use of mobile phone interceptor base stations by mobile network operators. It is not envisaged that the installation of interceptor base stations would have a material impact on coverage or quality of service commitments or requirements contained in mobile network operators' licences.

Before going into the details of the responses to the consultation it is appropriate to clarify particular issues concerning interceptors as it was evident from the responses that there is some confusion concerning these devices. Some of these issues are discussed below.

#### **3.1 Mobile phone interceptors**

A mobile phone interceptor base station prohibits the phone user from either making or receiving calls, except for emergency calls or calls to and from a list of approved phone numbers which are registered with the mobile operator. It is important to state that an interceptor is not a "listening in" device.

#### **3.2 Mobile phone detectors**

Mobile phone detectors are perhaps a more cost effective alternative to interceptors which may be appropriate in some cases. Mobile phone detectors constantly monitor for the presence of mobile phones or radio transmissions. When a transmission is detected the mobile phone detector typically alerts the user with a flashing light, a siren and an optional voice message which requests the user to switch off their mobile phone. As such, mobile phone detectors do not usually prevent the use of mobile phone devices. Providing that such devices are compliant with the relevant regulations, e.g, R&TTE Directive 1999/5/EC transposed into Irish law as Statutory Instrument 240/2001, then they may be put into use if required.

#### **3.3 Access Overload Control**

The consultation process also brought to the attention of ComReg the system of Access Overload Control (ACCOLC) which has been implemented in the UK. This system is quite distinct from the proposals presented in the Consultation Document 04/74. ACCOLC is a control programme that mobile network operators in the UK have agreed to implement at the request of the Police or Cabinet Office to ensure that, in an emergency, the public safety services and other relevant authorities will have priority access to cellular radio systems which might otherwise become

congested by non-essential users. ComReg could support such a system if it were to be implemented in Ireland, however, this is an issue that should be discussed by the emergency services and the mobile network operators.

### **3.4 Mobile phone jammers**

ComReg would also like to take this opportunity to reiterate that the use of jammers is prohibited from use in Ireland under section 12A of the Wireless Telegraphy Act, 1926 and under the R&TTE<sup>1</sup> and EMC Directives<sup>2</sup>. See Consultation Document 04/74 for further information.

### **3.5 Mobile phone etiquette**

Mobile phone etiquette can play a significant part in reducing or at least minimising annoyance to other members of the public caused by inappropriate use of mobile phones such as in cinemas and theatres. It is important that all interested parties continue to do their utmost to encourage the appropriate use of mobile phone devices raising issues of politeness, awareness of others and encouraging the use of mobile phone facilities such as silent mode in appropriate circumstances. Public education can address some of these issues. ComReg will keep this matter under review.

### **3.6 Consultation Issues**

The consultation addressed three specific issues namely:

- whether there is a requirement for the use of interceptors in Ireland;
- if a requirement does exist, at what locations could interceptors be installed;
- what conditions should apply to the use of interceptors.

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<sup>1</sup> Article 3(2) of Directive 1999/5/EC Of The European Parliament and of The Council Of 9 March 1999 On Radio Equipment And Telecommunications Terminal Equipment And The Mutual Recognition Of Their Conformity O.J. 7.4.99 L 91/10 (The R&TTE Directive).

<sup>2</sup> Council Directive 89/336/EEC of 3 May 1989 on the approximation of the laws of Member States relating to electromagnetic compatibility OJ L 139, 23.5.1989, p. 19. Directive as last amended by Directive 93/68/EEC.

## 4 Consultation Topics

In its concluding chapter, the consultation on “Mobile Telephony Interceptors in Ireland”<sup>3</sup> invited comments from interested parties on the issues raised in the paper. A number of specific questions were posed and in this section respondents’ views are addressed under these question headings.

### 4.1 The use of GSM Interceptors in Ireland

#### 4.1.1 Summary of Consultation Issues

There has been considerable growth in the use of mobile devices such as mobile phones, wireless LANs and GPS over the last decade. The ubiquitous nature of such devices has resulted in calls for restricted use of certain mobile equipment in particular public areas such as cinemas, theatres, hospitals etc.

**Q. 1. Do you agree that there is a limited requirement for the use of GSM interceptors in Ireland and if not why not?**

**Q. 2. In what locations should the installation of GSM interceptors be considered? Examples given in the document are prisons and hospitals, are these appropriate and are there others?**

#### 4.1.2 Views of Respondents

There were sixteen responses to Question 1. Twelve of the respondents were of the opinion that there was a limited requirement for interceptors. Five of the respondents were of the opinion that public education on mobile phone etiquette was the best route to take to curb the annoyance factor caused by the inappropriate use of mobile phones. Two of the respondents saw the installation of interceptors as beneficial in major emergency situations such as an aviation accident. Three respondents saw no need for interceptors in any circumstance. None of the licensed GSM mobile network operators (MNO) were of the opinion that interceptors should be widely available. One MNO foresaw a limited use in prisons and hospitals and another considered the use of interceptors only appropriate where it is essential to uphold the law.

Six of the 11 respondents to Question 2 were of the opinion that interceptors should only be available in hospitals and prisons. However, three of these were of the opinion that only certain areas of a hospital such as Intensive Care Units and Accident & Emergency rooms should have restricted access and that internal office areas and wards should not be affected. One respondent was concerned that the interceptors themselves could potentially cause interference to sensitive hospital equipment. Four of the respondents were of the opinion that interceptors should be

<sup>3</sup> ComReg Document 04/74

allowed in cinemas and theatres. One MNO expressed the view that interceptors should not be widely available due to the negative perception that such systems would create with regard to the mobile network affected and again raised the issue of controlling the area of operation of the interceptor. A second MNO did not see any justification for the use of interceptors in hospitals or prisons and that existing measures to prevent use should be sufficient. A third MNO was of the view that interceptors should only be installed in areas which are specifically required to maintain the law and that the cost of funding, installing and maintaining same should be the responsibility of those charged with upholding that law.

#### 4.1.3 ComReg's Position

ComReg believes that public education on mobile phone etiquette in public areas such as cinemas and theatres is, in general, preferable to the use of interceptors. Mobile phones are a great asset on both a social and economic level, however there is also a social responsibility on the part of users to avoid causing annoyance to others by their use of mobile phones, in other words to adopt a mobile phone etiquette. With this in mind, ComReg strongly encourages the mobile phone industry including operators, manufacturers, retailers and service providers to raise public awareness of mobile phone etiquette. Initiatives such as the publication of "*The Knowledge, a Parents Guide to Mobile Phones*"<sup>4</sup> by the Irish Cellular Industry Association are to be welcomed and ComReg would encourage further activities of that nature.

Nevertheless ComReg is of the view that there are situations where the use of mobile phone interceptor base stations would be beneficial in areas such as law enforcement and safety of life environments. There are also other, possibly cheaper, alternatives to mobile phone interceptors such as mobile phone detectors which may be appropriate in some cases (see Chapter 3, Introduction).

Concerns were raised with regard to interceptors causing interference to hospital equipment. It is important to note that all electronic equipment placed on the market in Europe, including Ireland, has to comply with the European Community EMC and R&TTE directives. Where there are issues concerning the safety critical nature of certain equipment it may be appropriate to conduct an impact assessment study to determine the potential, if any, for interference to the equipment.

Therefore, having considered all of the responses ComReg has decided that licensed MNOs may install mobile phone interceptor base stations as part of their network if they so wish.

In view of the fact that interceptor mobile phone base stations are wireless telegraphy equipment which may operate in the frequency bands assigned to GSM or IMT-2000 (3G) the use of such equipment is restricted to licensees in these bands. Under national legislation possession or use of wireless telegraphy apparatus, such as mobile phone interceptor base stations without a valid licence, or in contravention of the terms of a valid licence issued by ComReg is a criminal offence. This means

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<sup>4</sup> [www.icia.ie](http://www.icia.ie)



that only mobile telecommunications licensees can legally install and maintain these devices.

**Q.3. Do you agree with the proposal to permit the use of GSM interceptors under the following conditions:**

- **only interceptors that are able to recognise emergency numbers or lists of approved numbers can be installed,**
- **only public mobile network operators can install an interceptor,**
- **the interceptor can only intercept calls made by the operators own customers in their licensed spectrum unless an agreement is in place with other operators to share interceptors,**
- **the interceptor cannot cause any degradation of service to another network operator,**
- **mobile network operators must notify all installations to ComReg.**

**Q.4. Do you have any further proposals for conditions that should apply to the use of GSM interceptors? If so please give details.**

**Q.5. How do you think phone users should be informed that they are in a restricted services zone and is displaying a notice in public are sufficient?**

#### *4.1.4 Views of Respondents*

There were twelve responses to Question 3, of whom four agreed with the conditions proposed in the consultation. Three of the respondents were of the opinion that installers other than public GSM mobile network operators should be permitted to install interceptors. One respondent stated that they would have to carry out a full

impact assessment study before they could consider installing an interceptor base station. One MNO stated that issues of reimbursement of network operators for the services of installing and managing interceptors would have to be addressed. They continued by stating that if they were required to implement interceptors into its network they would require complete control over the impact of the interceptors on their customers. A second MNO expressed the view that if ComReg were to permit the use of interceptors then they should state clearly that no operator would be obliged to install an interceptor if it did not wish to do so. A third GSM mobile network operator strongly supported the condition that mobile phone interceptors must not cause any degradation of services to another network operator.

One respondent was of the opinion that the proposal that an interceptor could only intercept calls made by the MNO's own customers would be too unwieldy and that sharing between all operators was the only workable option. Another respondent considered it essential that an agreement be put in place that all operators share the same interceptor. Two respondents were of the opinion that if sharing was in operation the issue of degradation of services on another network would not arise. All of the respondents agreed that ComReg should be notified of all installations.

Only two of the ten respondents to Question 4 had further proposals on the use of interceptors. In the case of a major emergency whereby a hospital or similar institution would be placed on high alert a respondent working in the health service was of the view that there should be a mechanism whereby an interceptor could be switched off. The second respondent proposed a number of conditions that would be best addressed in consultation with a mobile network operator as they constituted commercial considerations.

Five of the ten respondents to Question 5 were of the opinion that displaying notices in public areas would be sufficient. One respondent said that the notice should also include information regarding the nearest pay/swipe phone. A second respondent from the law enforcement sector expressed the view that a notice should also be inserted into the information booklet issued to offenders in prisons. One MNO pointed out that the use of signs would not be of assistance to those who are affected by the leakage of the interceptors' coverage. One respondent in the health service also stated that more detailed notification and explanation would be needed for staff working in restricted areas. A second MNO was of the opinion that it is also essential for mobile phone users to understand that the inability to make and receive calls in such locations is unrelated to their mobile supplier but rather is something that is being imposed by the owner of the premises. In this way the customer expectations with regard to coverage and quality of service can be managed. Where MNOs installed base station interceptors at prisons and hospitals those running those institutions should have obligations to inform all persons residing in and visiting the premises of the existence of restrictions on the mobile phone service.

#### *4.1.5 ComReg's position*

On the basis of the responses received ComReg is of the view that only licensed mobile telecommunications operators can be allowed to install an interceptor base station. The use of and installation of interceptor base stations is not mandatory on

mobile telecommunications operators and the decision to install such equipment would be a commercial matter for the operator involved. ComReg is of the view, that by their, nature interceptor base-stations constitute apparatus for wireless telegraphy, and are of the category of equipment licensed under the GSM and IMT-2000 licences. These licensed mobile network operators are permitted to operate wireless telegraphy apparatus for the purpose of the provision of a mobile telephony service.

Therefore, the following conditions will apply to all licensed mobile telecommunications operators wishing to install mobile phone interceptor base stations as part of their network:

- In order to ensure that the use of such equipment does not fall foul of national or EU obligations or standards, only interceptors that are able as a minimum to recognise emergency numbers or lists of approved numbers can be installed;
- The interceptor can only intercept calls made by the MNO's own customers in their licensed spectrum unless an agreement is in place with other mobile network operators;
- Where no such agreement is in place between MNO's, the interceptors cannot cause any degradation of services to another network;
- Mobile network operators must notify all installations to ComReg as per their licence conditions;
- All interceptors must be compliant with the R&TTE Directive and all other pertinent EU and national legislation.

ComReg would also encourage organisations which have, or intend to have, mobile phone interceptors installed on their premises to insert information concerning the use and impact of interceptors into their organisational handbooks and to display notices in public areas to notify users that they are entering a restricted services zone.

For a mobile phone interceptor to be effective it should intercept calls to and from all networks in the affected area. This implies that from a practical perspective it would be necessary for all mobile network operators to agree on the installation and operation of a mobile phone interceptor base station. ComReg would encourage licensed mobile telecommunications operators to co-operate in reaching agreements on such installations.

In summary ComReg is of the view that there is a limited requirement for mobile phone interceptor base stations in Ireland but that there are other options such as those discussed in the document which may be more appropriate in certain situations. The use of mobile phone interceptors by licensed mobile telecommunications operators as part of their network is entirely voluntary and should be based on a commercial arrangement between the parties involved, i.e., the MNO and the owner of the premises.

## Appendix A – Legislation

All Wireless Telegraphy apparatus used in the State must be licensed under section 5 of the Wireless Telegraphy Act 1926 unless it is specifically subject to an exemption order, for example, GSM and 3G mobile telephones.

Section 3(2) of the Act provides that it is an offence for a person licensed under the Act to use the apparatus otherwise than in accordance with the terms and conditions subject to which such licence is expressly, or is by virtue of this Act deemed to have been granted.

Section 12A of the 1926 act, refers to interference with is injurious to Wireless Telegraphy, it states that “it shall not be lawful for any person to work or use any apparatus for wireless telegraphy that electro-magnetic radiation there from interferes with the working of or otherwise injuriously affects any apparatus for wireless telegraphy in respect of which a licence has been granted under this Act .....

As jammers emit electro-magnetic radiation that causes interference to the mobile devices within its area of operation they are banned from use in Ireland under this section of the Wireless Telegraphy Act. However as interceptors do not prohibit operation of mobile devices by means of emission of electro-magnetic radiation this section of the 1926 act is not applicable.

Section 12(b) of the Wireless Telegraphy Act 1926 prohibits deliberate interference to wireless telegraphy. The section states,

- “**12B.** (1) Any person who uses any apparatus for the purpose of interfering with any wireless telegraphy shall be guilty of an offence.
- (2) Subsection (1) of this section shall apply whether or not the apparatus in question is wireless telegraphy apparatus or apparatus to which section 12A of this Act applies and whether or not any notice under subsection (7) or subsection (9) of that section has been given with respect to the apparatus.
- (3) A person guilty of an offence under this section shall be liable -
- (a) on summary conviction, to a fine not exceeding one thousand pounds together with, in the case of a continuing offence, a further fine (not exceeding one thousand pounds in all) not exceeding one hundred pounds for every day during which the offence is continued,
- (b) on conviction on indictment, to a fine not exceeding twenty thousand pounds together with, in the case of a continuing offence, a further fine not exceeding two thousand pounds for everyday during which the offence is continued.”

Section 12(a) deals with interference caused by Wireless Telegraphy apparatus emitting electro-magnetic radiation, whereas, section 12(b) does not limit itself to wireless telegraphy apparatus and moreover does not limit interference to that caused by the emission of electro-magnetic radiation.

In the absence of a definition of interference in the Act, such a definition is sought elsewhere. Regulation 2 of the Authorisation Regulations<sup>5</sup> primarily defines harmful interference<sup>6</sup> in a manner limited to radio-navigation and emergency services. However, it adds to the definition a general prohibition against harmful interference which “. . . otherwise seriously degrades, obstructs or repeatedly interrupts a radiocommunications service operating in accordance with the applicable European Community or national regulations.”<sup>7</sup>

Radiocommunications and telecommunications terminal equipment placed on the market in the European Community must comply with the essential requirements of Directive 1999/5/EC of The European Parliament and of The Council of 9 March 1999 on Radio Equipment and Telecommunications Terminal Equipment and the Mutual Recognition of their Conformity O.J. 7.4.99 L 91/10 (the R&TTE Directive).

All electrical and electronic appliances placed on the market or taken into service in the European Community must bear a CE mark indicating its conformity to all provisions of Council Directive 89/336/EEC of 3 May 1989 on the approximation of the laws of Member States relating to electromagnetic compatibility OJ L 139, 23.5.1989, p. 19 (the EMC Directive), as last amended by Directive 93/68/EEC.

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5 S.I. 307 of 2003

6 “harmful interference” means interference which endangers the functioning of a radionavigation service or of other safety services or which otherwise seriously degrades, obstructs or repeatedly interrupts a radiocommunications service operating in accordance with the applicable European Community or national regulations;

7 This is the same as the definition in the General Authorisation.