



## Submissions to Information Notice

### **Regulatory Framework for Next Generation Voice Services, including VoIP**

#### **Submissions received from respondents**

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**1 ALTO – alternative operators in the communications market**



**ALTO Response: Regulatory Framework for Next Generation Voice Services, including VoIP**

ALTO has had the opportunity to review the BT Ireland Limited submission and we agree generally with the data contained and comments therein. For the purposes of comment and response we adopt same as our own position.

As ComReg is aware, ALTO members can adopt the group position or indeed respond unilaterally. In this instance, we are about to make identical points to BT thus are taking this approach in response to the Information Notice.

*Directors: George Doherty (ESBT), Gary Keogh (Colt), John O'Dwyer (BT) & Ronan Lupton (Chair) Company Number: 305462*

## **2 BT Communications Ireland Limited (BT)**

## **BT Comments to the ComReg Information Notice Regulatory Framework for Next Generation Voice Services, including VoIP**

Issue 1 - 17<sup>th</sup> December 2010

### **Introduction**

This is a timely and helpful publication both due to the transposition of the New European Regulations coming into force from May 2011 and discussions currently taking place to pilot Next Generation fibre to the home/premise services. We would like to make the following comments to assist ComReg and the discussion.

### **Comments**

#### **Network Integrity Issues**

1. Minimum Standard Definition - Clearly compliance must be achieved against European and Irish legislation but in the in case of Network Integrity there is an issue of commercial diversity and customer choice above a minimum acceptable level. For example, some providers may wish to offer very cheap telephony products on a 'when available' basis over the public internet, and provided the customer is made aware of what they are purchasing they should have the choice, likewise a multi-national corporate may wish to purchase a service with high reliability and again the choice should exist. We therefore consider that what the EU and ComReg are proposing is the minimum acceptable standard only and are of the view that the minimum standard needs to be brought out more clearly in the Information Note.
2. Information Security – To us it is common sense not to have all your eggs in one basket, or at the same location. For common sense reasons we believe ComReg should avoid bringing sensitive network information about all the networks together in one location. For example general documentation gathering from the industry should be at a higher level with more detailed information either inspected at the operator premises or requested on a case by case basis when required for a specific reason, and then destroyed once the situation is resolved.

#### **Emergency Service Access**

1. Next Generation Access and DC Power – ComReg and Analysys Mason rightly identify the issue of availability of NGV services but simply say that such should be equivalent to the availability of the existing PSTN. Our understanding of this recommendation is that battery back-up will NOT generally be required in Ireland for a number of reasons some of which are discussed below:
  - a. The Cable Company UPC provides derived voice over a mains powered NTU and this has been acceptable for the past years and thus continuing this approach meets the Analysys Mason criteria. This is an important precedent in Ireland.

- b. The Analysys Mason recommendation does not set any particular numeric target other than to say equivalent with existing standards. Fortunately for eircom supplied services we know the numeric values for the current standards as ComReg has been measuring eircom's USO performance over the past two years and ComReg has legally agreed with eircom the USO targets. Hence a possible proxy for fibre powered NGV is to meet the eircom USO targets when using the eircom network.
  - c. Fibre services are generally considered to be more reliable than copper hence the fault index for fibre power NGV should improve.
  - d. The electricity supply in urban Ireland and in many cases rural Ireland is of a high availability standard and if measured over a year (to align with the USO approach) it's highly probable that compliance with the USO requirements will be met. However it is accepted that some rural locations maybe more vulnerable to power failure and such will require battery back-up.
  - e. Additionally, it's often considered the power will always fail in a problem situation whereas the phone line power will not. It should be noted that the mains power does not always fail, modern installations have local circuit trips to avoid complete power failure and additionally fire etc can disable the phone in modern homes as such are now incorporated into the living area rather than in the hall or lobby by the front door.
  - f. The take up of Mobile phones in Ireland is over 100% hence there is an increasing ability to make a call from a mobile phone.
2. ECAS – The BT ECAS system is now fully operational and is taking all the 112/999 calls made in the Ireland. During the development of this system a number of operators and providers raised issues concerning VoIP calls and as discussed by Analysys Mason the system is designed to, and does receive such calls. BT has set the format requirements etc for the provision of VoIP location information to the ECAS and will process VoIP location information provided. However, ultimately ECAS is depended on the quality and completeness of the location information provided by operators and service providers.

End

**3 eircom Ltd and Meteor Mobile Communications Limited  
(Eircom Group)**



eircom Group

Submission of Comments to ComReg Information Notice  
10/91:

*Regulatory Framework for Next Generation  
Voice Services, including VoIP*



17 December 2010

## DOCUMENT CONTROL

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## EXECUTIVE SUMMARY

- eircom welcomes the publication of the ComReg and Analysys Mason documents. The documents are helpful to operators and the industry by increasing awareness of the pending regulations as they relate to Next Generation Voice Services (NGV).
- eircom is putting forward a number of recommendations which propose that ComReg should engage with operators with the purpose of providing clarity on the implementation of the new regulations.
- eircom notes that NGV services are evolving and therefore ComReg should, within the boundaries of the new regulations, take a proportionate approach to implementation.
- The comments and recommendations contained within this submission represent the views of eircom and Meteor (hereinafter 'eircom').

## **GENERAL COMMENTS**

eircom has reviewed the ComReg Information Notice (ComReg 10/91) and the accompanying Analysys Mason report (ComReg 10/91a). These documents set out the new regulations that will be transposed by May 2011 into Irish Law arising from the 2009 EU Directives (2009/136/EC and 2009/140/EC). The regulations under consideration are those that relate to Next Generation Voice Services (NGV), including Voice over IP (VoIP). eircom welcomes the awareness that the ComReg and Analysys Mason documents provide.

Acknowledging that ComReg is not conducting a formal consultation, eircom is submitting comments and recommendations which are intended to be of assistance to ComReg and other operators.

In setting out comments and recommendations eircom has followed the structure of the ComReg Information Notice.

### **1. 'Withdrawal' of the ComReg 05/50 Guidelines**

The new regulations will supersede the Guidelines which ComReg set out in its document "Guidelines for VoIP Service Providers on the treatment of Consumers" (ComReg 05/50). eircom concurs with the intention that the Guidelines will be withdrawn and become obsolete when the 2009 EU Directives are transposed into Irish Law.

### **2. Network Integrity & Network Security in NGV Services**

The networks which eircom employs to provide its current IP based service (VoIP and Voice over Broadband) are 'Carrier Class' networks. eircom regards its networks as complying with the requirements of the new regulations and will incorporate the requirements into the design of any new networks. eircom maintains its networks to the highest standards possible. In the development of NGV services eircom ensures that best practices in network and service design are followed with respect to service availability and recovery.

eircom agrees that there should be a transition period for any NGV operator in order to introduce measures to meet the new regulatory obligations.

**Recommendation 1:** ComReg should notify all operators of the transposition date so that operators can assess their need to avail of the transition period.

eircom notes that both the new regulations and ComReg express the need for network security and integrity, and that auditing should be conducted.

**Recommendation 2:** eircom recommends that ComReg should consult with the industry in the event that ComReg would require the reporting and auditing of 'best practice – policies and practices'. The purpose of the consultation would be to create a common understanding and to put in place formalised methods that can be equally applied to all operators.

### 3. Access to emergency services

eircom permits current VoIP customers to access the emergency services free of charge and this practice will continue in compliance with the new regulations. The level of guarantee that eircom can offer at a network level will be consistent with the current PSTN related guarantees and with the 'Carrier Class' standards of the eircom networks.

eircom may develop new NGV networks and will initially provide access on a best effort basis until such time as the networks mature.

## 4. Provision of access to 112/999 emergency services

Under its Universal Service Obligations (USO) eircom provides equivalent access to disabled users of the fixed line network. In addition all Customer Premises Equipment (CPE) meets the requirement of the USO.

The current CPE will operate on a VoIP network by connection to the broadband modem. eircom will investigate technological developments in CPE for VoIP compatibility and in particular as they relate to disabled users. eircom customer communications will include information on accessing the emergency services using NGV and the suitability of CPE in the event of power failures.

**Recommendation 3:** eircom recommends that the National Disability Forum be used to assist operators in communicating with disabled users. The communications may include information on accessing the emergency services using NGV and the suitability of CPE in the event of power failures.

In any event eircom will continue to provide advice to customers on NGV with respect to accessing the emergency services.

## 5. Provision of Location Information

eircom's Voice over Broadband service is a 'second line' service and eircom currently does not promote nomadic use of the service. The location information for the purposes of emergency calls is that of the 'first line' i.e. the fixed line installation address.

Under the new regulations ComReg will expect that fixed line operators should obtain from the customer the location where the NGV service will normally be used and also to provide the customers with a mechanism to amend this location as necessary. These proposals will pose challenges to operators as follows:

- Capturing the location information from the customer will require systems developments

- Systems and processes will be required to pass the location information -that is different to the installation address -to the Emergency Call Answering Service (ECAS)
- Systems and processes will be required to permit customers to change the location information
- The term location is not defined as to whether it is an address or some other identification such as GPS co-ordinates.

More generally the use of location information will need to be reviewed for all network providers, fixed and mobile, etc.

**Recommendation 4:** eircom recommends that any regulation with regard to location information should be reviewed with operators to assess the technical capabilities and the appropriate timing of new requirements. Clarification of the meaning of ‘location’ would be an essential part of the review including how the location information can be passed efficiently to the ECAS. In the interim period customer communications should advise customers of the limitations of using NGV to access emergency services with regard to location information.

## 6. Quality of NGV service, including transparency

Quality of service measurement is important in the provision of any service. The development of quality of service measurements will need to evolve as the NGV networks mature. Any requirement to produce specified measurements may restrict innovation of NGV networks or may not be appropriate at a given time.

**Recommendation 5:** eircom recommends that ComReg should consult with operators to assess the appropriate quality of service metrics and to create a common understanding of the measures.



## **7. Nomadicty of NGV services and Geographic / Non-geographic Numbers**

eircom notes ComReg's concern with the potential use of geographic numbers for extended periods outside of the designated geographic areas. In view of the low adoption of '076' by customers for VoIP, it may be difficult to persuade customers not to use geographic numbers nomadically for prolonged periods.

In the absence of a greater acceptance of '076', restricting the use of geographic numbers may limit the evolution of NGV and VoIP in the short to medium term.

## **8. Mobile NGV**

eircom agrees that mobile numbers should only be allocated and used for truly mobile services.

## **Summary of eircom recommendations**

**Recommendation 1:** ComReg should notify all operators of the transposition date so that operators can assess their need to avail of the transition period.

**Recommendation 2:** eircom recommends that ComReg should consult with the industry in the event that ComReg would require the reporting and auditing of ‘best practice – policies and practices’. The purpose of the consultation would be to create a common understanding and to put in place formalised methods that can be equally applied to all operators.

**Recommendation 3:** eircom recommends that the National Disability Forum be used to assist operators in communicating with disabled users. The communications may include information on accessing the emergency services using NGV and the suitability of CPE in the event of power failures.

**Recommendation 4:** eircom recommends that any regulation with regard to location information should be reviewed with operators to assess the technical capabilities and the appropriate timing of new requirements. Clarification of the meaning of ‘location’ would be an essential part of the review including how the location information can be passed efficiently to the ECAS. In the interim period customer communications should advise customers of the limitations of using NGV to access emergency services with regard to location information.

**Recommendation 5:** eircom recommends that ComReg should consult with operators to assess the appropriate quality of service metrics and to create a common understanding of the measures.

## **4 Magnet Networks**

Magnet Networks welcomes the information notice on Next Generation Voice (NGV) including VoIP.

Magnet Networks is a VoIP provider and feel overall, the suggestions and assumptions put forward by Analysys Mason are those that are already in general practice in industry.

We find that people require education about NGV especially VoIP i.e. that if they have a VoIP phone that 112/99 calls may not be made if the electricity or broadband fails unless there is a UPS inbuilt into the phone. If VoIP providers are required to provide 112/999 services equivalent to PSTN it would create an onerous obligation on these providers. PSTN and NGV are inherently different and they should be viewed as being different. This require an acceptance that NGV phones may not be able to make calls unless an uninterrupted power supply is connected to the phone when electricity goes.

Customer must also be educated in the area of security not just for their VoIP calls but all their internal computer systems i.e. there has been a rise in the number of business PBX's being hacked and this is partially due to a lack of internal security plans and a frequent change of passwords by the business in question.

In relation to the recommendation relating to R1 and R2 requiring a provider to give an annual audit report to ComReg would be onerous, expensive and time consuming. Providers monitor their networks for faults; security breaches and ageing software regularly, to audit this would take away from the actual monitoring process.

Overall, the recommendations by Analysys Mason are those already adopted by the majority. It must be remembered that onerous clauses should not be placed on NGV providers as it would stymie the growth of NGV services. It must be acknowledged that NGV is not PSTN even if they do give them end result the mechanism by which they do it is different and this creates difficulties in providing some equivalent services.

## 5 Vodafone



**Vodafone Submission on the ComReg Information Note “Regulatory Framework for  
Next Generation Voice Services, including VoIP”**

## Introduction

Vodafone welcomes ComReg's information note relating to "Next Generation Voice" and believes it represents a useful starting point for consideration of the implications of the impending changes to the legislative environment arising from the transposition of the amended EU Directives relating to telecommunications.

Given that the Information Note is a prospective assessment of the legislative environment post transposition, and the nascent stage of development of standards relating to network integrity and security for Electronic Communications Networks and Services, Vodafone appreciates that the views set out by ComReg are necessarily high level.

In this regard Vodafone notes that given its focus on the changes wrought by the amended Directives the Information Note is a partial examination of the regulatory framework for Next Generation Voice Services. Vodafone looks forward to the next stages of ComReg's examination of this regulatory framework and has outlined below some areas which it feels are relevant to this matter.

## Comments on Information Note topics

### 'Withdrawal' of the ComReg 05/50 Guidelines

Vodafone agrees that based on the legislative changes it is appropriate to withdraw the ComReg 05/50 Guidelines.

### Network Integrity & Network Security in NGV Services

Vodafone notes the high level approach that is likely to be adopted by ComReg and DCENR as set out in the Information Note. Vodafone looks forward to engaging with the consultative process that is outlined by ComReg in relation to the detail of this approach.

As ComReg has set out, Articles 13a and 13b of the revised Framework Directive relate to all networks and not just those supporting NGV. In this regard Vodafone believes that a wider consideration of this aspect of the Directive revisions is warranted including transition arrangements that might apply to existing and prospective network and service providers comprehended by the revised provisions.

### Access to emergency services

#### PROVISION OF ACCESS TO 112/999 EMERGENCY SERVICES

Vodafone notes ComReg's proposed approach in relation to access to emergency services from network independent service providers. In this regard Vodafone would endorse ComReg's proposal "*to require that network-independent providers should give evidence to support any such claims that the access they provide cannot be guaranteed*". The introduction of ECAS has fundamentally changed the cost recovery mechanisms for calls to emergency services. There is now a significant cost to service providers associated with such calls. An approach other than the one suggested may allow certain classes of service providers to avoid such costs which would confer a commercial advantage on them.

In relation to the proposal in Recommendation 12 relating to battery back-up, Vodafone believes that this issue requires further consideration as such an approach may represent a constraint on the provision of voice service over full LLU where there is no line power associated with the unbundling solution. This may also have implications for VOB solutions, particularly in the business space.

#### PROVISION OF LOCATION INFORMATION

From the context Vodafone believes that that the points that ComReg makes in relation to the obtaining and updating address information (points B and C of this section) relate to services where the customer has the ability to “move” location without the intervention of the service provider. Clearly this will not be the case in respect of all service delivery solutions and requirements of this type may be an un-necessary burden in scenarios where the service provider controls the location of terminal equipment.

Further that this requirement is contemplated in relation to multi-site customers indicates an implicit market demand for, and availability of, such services. In this regard there appears to be a disjoint between the numbering conventions which are restrictive in relation to the locations where numbers may be terminated and by definition the CLI that may be presented on outbound calls to emergency services.

Having implicitly recognised this market dynamic it is perhaps appropriate for ComReg to examine this aspect of the numbering conventions to ensure that they do not represent an undue constraint on the development of NGV services and solutions.

### **Quality of NGV service, including transparency**

Vodafone agrees with the approach proposed by Analysys Mason and endorsed by ComReg that it is appropriate at this stage to monitor the NGV market situation, including monitoring customer complaints in respect of Net Neutrality and transparency issues.

### **Nomadcity of NGV services and Geographic / Non-geographic Numbers**

Vodafone notes ComReg’s position on these issues and again points out the potential disjoint between the provisions of the numbering conventions as summarised under this section and the procedures proposed under section 5.2 of the Information Note which seem to imply a recognition of actual market demand for, and availability of, fixed NGV services which the end-user can effectively self –provision at different locations from time to time. Vodafone believes that this issue warrants further investigation, perhaps initially by way of ComReg’s Numbering Advisory Panel.

### **Mobile NGV**

Vodafone agrees with ComReg’s proposed approach in respect of Mobile NGV.

### **Number portability**

Vodafone notes ComReg’s position in respect of Number Portability.

### **Resolution of interconnection or cross-border disputes**

Vodafone notes ComReg’s position in respect of the resolution of interconnection or cross-border disputes

### **Access to Directory Services & Provision of Directory Data**

Vodafone notes ComReg’s position in respect of access to Directory Services & provision of Directory Data

### **Other issues relating to the Regulatory Framework for NGV**



Vodafone is of the view that important additional issues arise for consideration in respect of the regulatory treatment of NGV. Most fundamentally is the question of whether fixed NGV falls into the same market as Wholesale Fixed Call Origination and/or Wholesale Fixed Call Termination. The answer to this affects the nature of services that a SMP operator in these markets might be obliged to offer and the price and conditions of such supply.

While at the wholesale level call termination and retail narrowband access may be in separate markets in practice if a PSTN operator supplies the retail narrowband access they also supply the ability to terminate calls to the telephone number associated with that line. This linkage may be broken with the introduction of FTTH, Naked DSL and other access mechanisms which decouple the calls element from the narrowband access.

With the advent of NGV services situations may arise where the SMP operator introduces NGV services in parallel to its regulated PSTN services. The consideration of whether these NGV services are also regulated has profound implications for the correct operation of the markets and is a central matter for the regulatory framework for NGV. Vodafone urges ComReg to consider these issues and where appropriate carry out a market analysis procedure to ensure that current market definitions and designations are not overtaken by technology and leave unintended areas where warranted regulation is in fact absent.

In relation to issues relating to network integrity and security Vodafone notes that there has been a move to partial regulation of end to end services. This is most notable in the removal of the SMP designation from the market for the Wholesale Trunk Segment of Leased Lines. In this case operators implement a handover from eircom's network to their own for aggregated terminating segments. Such handovers are growing in size and are therefore more impacted by physical disruption such as fibre breaks.

Eircom does not face such risks as its handovers are internal to its own premises, often being virtual within the same equipment. Therefore in order to achieve integrity levels which approximate to eircom OAOs must purchase resilience or some other forms of diversity. Vodafone believes that design choices by eircom can limit the availability of some forms of cost, and operationally, efficient handover.

For example the requirement by eircom that each WSEA physical circuit maps on a 1 to 1 basis to a WSEA logical link to a single WEIL limits the possibility of load sharing over multiple WEILS and binds WEIL resilience and protection to more expensive physical layer solutions. Vodafone believes there should be an examination of eircom's design approach to ensure that the structural advantages of a vertically integrated operator are not unduly leveraged in this regard.