



Response by Viatel to Ofcom Consultation on Regulation of VoIP Services

Introduction

Viatel agrees with Ofcom's goal of fostering the development of VoIP services, whilst ensuring that the interests of consumers are protected. Recent technological advancements have meant not only that the way in which voice services are provided is changing, but also that the very structure of the industry is changing, in a way that legislators sometimes struggle to keep up with.

As infrastructure and transport become increasingly commoditised, telecoms providers are focussing on services and applications. This, combined with the advent of "next generation networks" (NGNs), means that the traditional model of, and link between, infrastructure and voice is disappearing.

This consultation comes at a time when the European Commission is just beginning to discuss the way in which the current regulatory framework should evolve to reflect these changes. Ofcom may therefore face challenges when adapting UK regulations to keep pace with change before the European review is complete. We believe, however, that appropriate solutions can be found, as described below.

Summary

Access to Emergency Services:

Viatel agrees with Ofcom that all VoIP providers should be encouraged to provide access to emergency services. We accept Ofcom's view that where a VoIP service meets all of the "gating criteria" referred to in paragraph 6.20 of Annex A (including providing access to 999) then it automatically becomes a Publicly Available Telephony Service ("PATS").

Network Integrity:

Some of the General Conditions which apply to all PATS are inappropriate for some VoIP service providers. Providers of VoIP services accessed from networks over which the VoIP service provider has no control or knowledge should only be obliged to ensure "network integrity" in respect of those elements of the network which are within their control.

Number Portability:

Although the Universal Service Directive gives the *right* to number portability only to subscribers of PATS, it does not prohibit any of the following:

- a) Providers of PATS offering number portability to their subscribers who wish to switch to a provider of ECS;
- b) providers of PATS offering Portability to providers of ECS; or
- c) providers of ECS offering number portability to their subscribers.

In view of:

- i) the importance of number portability to business customers
- ii) the desire of some business customers not to take access to 999 from their provider; and
- iii) the scarcity of numbers as a resource,

we do not agree with Ofcom's proposal to restrict the availability of Portability to providers of PATS.

About Viatel

Viatel offers Voice over IP to its business customers. Most of those customers use the service primarily at a registered office address, with the added facility that workers can log into any Viatel IP phone (whether at home or in another branch office) to make and receive calls from their own DDI phone number. Additionally, workers can use a "soft client" application to act like an IP Phone from any Internet or WiFi connection.

Viatel Hosted IP Voice provides a fully managed, bundled telephony solution for businesses, including IP enabled phones, connectivity and PBX functionality such as call forwarding and voice mail.

Viatel Voice IP VPN offers a single, secure VPN network for integrated voice and data traffic between company sites and remote workers.

Question 1: Given recent developments, do you agree that Ofcom's focus should be on the following three objectives in developing our policy for VoIP services, namely (in so far as is possible) (i) enabling innovation in a technological neutral way, (ii) ensuring consumers are well informed, and (iii) ensuring maximum availability of 999 services?

We believe that these are appropriate objectives for domestic users, but not necessarily for larger corporate customers. Business users should be free to make commercial judgments on the services they use. The consumer information Code is drafted to apply only to "Domestic and Small Business Customers". However, other proposals in this document, such as those

relating to the application of the General Conditions, apply to providers of VoIP or PATS for larger businesses as well.

We agree that Ofcom should retain its focus on consumer protection, whilst adopting a pragmatic approach to the application to all VoIP providers of conditions which were drafted with end-to-end network owners in mind.

Question 2: Do respondents agree with this approach for the interaction between network providers and PATS providers?

Most of the voice service provided by Viatel is to business users over Viatel's own leased lines or broadband connections. When our service is used away from the registered customer site address, it could be accessed over any fixed, cable, or wireless broadband connection, the provider of which would be unknown to us.

A PTN is defined in the Universal Service Directive as an ECN which is used to provide PATS. Ofcom explains in paragraphs 4.23 and 4.24 that network providers have expressed concern that they could become subject to additional general conditions for PTNs as a result of unknowingly providing access to PATS over their network, which they had believed to be an ECN. An example would be a cable company which offers a DSL only service, with no PSTN service included. Ofcom therefore recommends in paragraph 4.27 that PATS providers and network providers should develop SLAs if they see the need to address concerns about network reliability.

The definition of PTN in the USD ties the provision of PATS to the provision of a PTN. In the next generation world, the provision of networks becomes increasingly separate from the provision of the services and applications which run over those networks. We appreciate that Ofcom's hands are somewhat tied by the fact that European legislation may not yet have caught up with the reality of NGNs.

We believe that the eventual public policy solution should be as follows:

- The distinction between ECN and PTN should be removed.
- All providers of communications networks should have to:
 - comply with a minimum set of standards to ensure a reasonable degree of "network integrity"; and
 - make "emergency planning" arrangements such as are reasonable practicable.
- Obligations regarding location information should apply to PATS and PTN providers only the extent technically feasible and within the control of the relevant provider.

We will be making representations to this effect as part of the 2006 Framework review.

In the meantime we note that Ofcom recommends that providers of PATS “take reasonable steps” to develop an appropriate SLA with “the relevant network provider”. Viatel would be happy to do so where we have prior knowledge that our service is to be accessed over a particular network, but we believe that in the majority of cases where our service is used by home workers or “on the move” we will not have visibility of the networks used to access our service.¹

Question 3: Do you agree that the limitation of GC 3 obligation to providers of service at a ‘fixed location’ is not sustainable in the long term? What views do you have on how this may be addressed?

General Condition 3 places obligations on providers of PTNs at fixed locations and providers of PATS at fixed locations. We understand that Ofcom is primarily concerned about the requirements of:

3.1(b) - availability of PATS in the event of catastrophic network breakdown; and

3.1(c) - uninterrupted access to emergency organizations

as they apply to providers of PATS.

Ofcom is concerned that increasing numbers of providers of nomadic services will be exempt from these requirements. We believe that the difficulty is caused by the assumption embedded in GC 3 that the PTN and the PATS are provided by the same person. In such a case, the provider can control the availability of the PATS service by maintaining the integrity of the network which he himself controls.

In terms of GC 3, the situation is really no different for providers of nomadic service than it is for providers of voice over broadband, where the broadband provider is unknown to the voice service provider. In both cases, the provider can only guarantee access to the voice service to the extent that they control the network over which the call travels.

We therefore refer to our answer to question 2, where we recommend that some minimum maintenance obligations are placed on the operators of all networks. We believe that this better enables a multi-service, inter-meshed environment.

Question 4: In light of the other measures proposed in this document, are there particular issues in relation to VOIP services that should be addressed in this review?

¹ See further comments on GC 3 in the answers to questions 3, 32 and 33 below.

No.

Question 5: Are there particular issues in relation to VoIP services that should be addressed in the 2006 framework review?

Certain aspects of the Universal Service Directive do not accommodate a converged environment. For example, Article 23 (network integrity) implies that the provider of PATS at a "fixed location" is also the owner or controller of the line access to that location, or at least the controller of the network over which the PATS is provided. With VoIP, this is not necessarily the case. Arguably, the concept of a "public telephone network" is, in itself, anachronistic and at the very least the definition of PTN should be de-coupled from the provision of PATS.

Article 30 (number portability) of the USD is not drafted widely enough to cover all eventualities (see answer to question 6 below).

Article 26 (emergency services) should be redrafted to reflect technical and commercial developments (current and expected) in relation to location information.

In general, we believe it is worth re-examining the classifications of ECS, PATS, ECN and PTN as we move away from PSTN and traditional models towards NGNs, convergence and new business models.

Question 6: Do you have any comments on Ofcom's proposed modification to the PATS definition in GC 18?

The definition of "publicly available telephone service" in the Universal Service Directive is rooted in the PSTN world. The requirement of the full suite of the four "gating criteria" is less appropriate for second line services; nor is it particularly relevant for business users, where customers are able to make informed choices about which services they wish to take.

We understand that Ofcom has been advised that Article 30 of the USD gives the right to number portability only to subscribers of PATS (and we accept that interpretation). Whereas Article 30 requires Member States to ensure that subscribers of PATS can retain their number independently of the service provider, the UK's General Condition contains two obligations:

- 1) on providers to offer *number portability* to their own subscribers (of PATS); and
- 2) on providers to provide *Portability* to *any* Communications Provider (*defined as a provider of ECS*).

In requiring the *gaining* provider to be PATS, we believe Ofcom is both misinterpreting General Condition 18 and failing to comply with Article 30 USD, by denying number portability to a subscriber of PATS who wishes, for

example, to migrate to a VoIP service which happens to be ECS. In denying a right to *Portability* to ECS providers, Ofcom is in fact denying *number portability* to PATS subscribers. We believe that a PATS provider would be in contravention of GC 18.1 if it denied number portability to a subscriber who wished to move to an ECS voice service.

We believe that the rationale of Article 30 was to give subscribers of public telephony services a right *against their provider*, not principally to give providers of PATS a right *against other providers*. Therefore denying the right to "Portability" to providers who *wish* to offer "Number Portability" to their subscribers may go against the spirit of the legislation. Oftel believed that it was not the intention of the Universal Service Directive (USD) to exclude users of non-geographic numbers. Neither was it their intention, we would argue, to exclude users of VoIP services. The key objective of number portability is to enable users to exploit the benefits of a competitive market with minimum inconvenience. Therefore, in the interests of the consumer, and from the point of view of a consumer, the regulatory status of the service provider should be irrelevant.

There is already no reason why two providers cannot strike a commercial number portability agreement even if the recipient provider is non-PATS. We are concerned that this key aspect of number portability is disregarded in the document.

We believe that Ofcom should go further than the directive and, so that any service provider who wishes to offer portability to their customer can do so, they should require CPs to provide Portability to any other CP who requests it. Any other direction in regard to Number Portability would contravene the principle of technical neutrality.

We do not believe that, in extending the right to subscribers of ECS, Ofcom would be acting *ultra vires*. The director general of Oftel extended the right to include users of geographic numbers, so a precedent has been set for going further than the minimum required by the directive.

We believe that, rather than modify the terms of General Condition 18, Ofcom should instead modify the definition of "Subscriber" to include subscribers to ECS so that, for the benefit of consumers, they have the right to port their number between non-PATS services, as well as out from PATS services. The definitions of Number Portability and Portability should be changed to remove the reference to subscribers of PATS only.

We understand that Ofcom is keen to provide an incentive to VoIP providers to offer access to 999. However, we believe that taking a pragmatic approach to the application of GC 3 and other conditions applying to PATS would itself provide VoIP operators with the confidence to provide access to 999 without worrying about contravening conditions with which they may be physically and technically unable to comply.

We do not believe that increasing the provision of access to 999 can or should be achieved by denying the right to number portability not only to subscribers of VoIP ECS, but also to subscribers of PATS who wish to switch to a VoIP ECS.

Question 7: Do you agree with the proposed application of the code?

Yes.

Question 8: Do you agree with the proposed approach for informing consumers that services may cease to function if the broadband connection fails or there is a power cut or failure?

In order that VoIP providers are not discriminated against, we believe that all CPs should be obliged *in a similar manner* to inform customers about the potential shortcomings and failure points of their service. Examples include:

- for voice services accessed by DECT phones,
- mobile phone coverage areas, and
- technical or accidental damage causing faults on lines which can leave customers without service for several days.

VoIP services can in some circumstances function when PSTN and/ or mobile services fail. A prominent example is the reliance on VoIP on July 7th, 2005. More mundanely, when residential PSTN services fail broadband connections (and VoIP services) often continue to function.

Question 9: Do you agree with the proposed approach for informing customers where access to emergency calls is not available?

Yes.

Question 10: Do you agree with the proposed approach for informing consumers that access to emergency calls may cease to function if the Data Network fails or there is a power cut/ failure?

We believe that, where VoIP services are used as a "second line", a requirement to inform consumers *during the sales process* that access to emergency calls may cease to function if the power or the data network fails is unduly onerous. Given that many households only have DECT phones for their primary line, this unduly discriminates against VoIP services.

Question 11: Should the code be extended to point of signature acknowledgement in respect of reliability of access to emergency calls?

No. Acknowledgement regarding reliability of access to emergency calls should only be required if it is required equally from all Communications Providers whose access to emergency calls could fail for any reason.

Question 12: Do you agree with the proposed approach to location information providers where the service does provide access to emergency calls? In particular, do you believe that subscribers should be required to register their main location prior to activation of the service?

We agree that customers who use a VoIP service principally from a fixed location should be encouraged to register their address if that service is designed to be used from a registered location. However, some VoIP services are sold as “nomadic only” or are not location-specific and requiring a fixed address may not be appropriate in these instances.

Question 13: Do you agree with the proposed approach to informing consumers where services do not provide emergency location information?

Yes.

Question 14: Do you agree with the proposed approach to informing customers where services do not provide number portability?

No. The draft code requires that customers must be informed *if a provider does not offer number portability*. Such a requirement is unreasonable if the provider wishes to offer NP but is unable to obtain Portability from certain “losing” providers, and it does not allow for the following eventualities:

- i) A VoIP ECS provider wishes to offer NP to its new customers and has, by commercial agreement, secured Portability from some “donor” operators but not others. As stated above, we do not believe that CPs should be encouraged by Ofcom to refuse to provide Portability to providers of ECS and we believe this is in contravention of GC 18.2.
- ii) The requirement to provide this information would have to apply to providers of PATS who deny number portability to their subscribers who wish to switch to an ECS service. This approach implies that PATS service providers should say in the sales process: “If you cancel our service and switch to another service provider, you will only be able to take your phone number with you if you are moving to a PATS provider, but not if you are moving to an ECS provider.” These are esoteric distinctions which mean little or nothing to consumers.

Question 15: Do you agree with the proposed approach to informing consumers about the types of facilities that might not be available, but which they have come to expect from a telephone service?

We do not believe this is relevant for large businesses.

Question 16: Do you agree with Ofcom's view that all aspects of the code of practice should be mandatory?

We believe that the code of practice should be mandatory in relation to the provision of services that do not allow access to 999 for residential customers and small businesses. In all other aspects we believe that a self-regulatory approach would be appropriate given the absence of customer detriment to date.

Question 17: Do you consider that the overall programme of activities is appropriate? Question 18: In light of Ofcom's Consumer Policy Review, are there other consumer education measures that Ofcom should consider? Question 19: Do you have comments on this proposed enforcement approach? Question 20: Are there other areas of research activity that Ofcom should consider to ensure it understands market developments?

Viatel believes that Ofcom should adopt a technology-neutral approach to activities surrounding consumer awareness, availability of 999 access and enforcement. Any activities undertaken with respect to VoIP should be matched by research concerning other non-traditional technologies, such as DECT and mobile and enforcement of compliance with the General Conditions for all communications providers.

We do not believe any such activities are necessary in the business sector.

We also trust that Ofcom will aggressively pursue enforcement of General Conditions against service providers who are based overseas but who offer numbers from the UK numbering plan to their customers. Ofcom should suspend activation of numbers (whether allocated directly or indirectly) in the event of non-compliance, particularly with respect to the consumer information code.

Question 21: In relation to ensuring high availability of 999 access, are there other measures that Ofcom could consider?

Viatel offers its customers (including nomadic users) access to emergency services. We cannot guarantee accurate location information for nomadic users (relying instead on the "VoIP flag") but nomadic users are, in reality, more likely to use an alternative method (such as a primary line) to call 999.

We believe that the best way to encourage VoIP providers to offer access to 999 is to remove onerous regulatory requirements associated with such provision. We do not believe that it is appropriate to restrict number portability to providers of PATS and we do not believe this was the intention of the Universal Service Directive.

We do not disagree with Ofcom's desire that all VoIP operators should offer 999 access, but we do disagree with the additional regulatory burdens that such provision might then entail. We do not believe, for example, that a Voice over broadband provider is in a position to maintain the functioning of "the Public Telephone Network" – other than the part within his control. The assumption in GC 3 is that the PATS services are provided over a network belonging to the PATS provider. For a VoBB provider this is clearly not the case.

Similarly, the application of General Conditions 5, 12 and 13 to certain VoIP providers (just because they choose to offer 999 access) may be inappropriate.

Question 22: Do you agree with Ofcom's approach to naked DSL?

Yes.

Question 23: Do you agree a cross industry meeting would be a useful approach to move this issue forward? What other steps could be taken to provide support for 056 numbers?

In its consultation on Telephone Numbering dated 23 February 2006, Ofcom stated that it now intends to treat the 056 range as experimental and keep its use under review. Ofcom instead plans to offer up the 03 range for businesses who require a national presence. Viatel will respond to those proposals directly.

Question 24: How can a VoIP call be traced for detection and prevention of malicious and nuisance calls? How could a suitable call screening service work in a VoIP network?

Contrary to the statement made in 9.19 it is also possible to trace VoIP calls to the originating point (e.g. through IP addresses). It is also possible to create SPIT blacklists to help filter and block nuisance calls and messages; such a system is not possible in a PSTN environment.

VoIP calls are transmitted either with a normal CLI (E.164 number) or with an identifier such as a SIP URI. The Telephone Preference Service is merely a list of telephone numbers, so it could be easily applied to VoIP identifiers.

Question 25: Do you agree that SPIT could be a potential problem and what techniques can be used to minimise the impact of SPIT on consumers of VoIP services.

The same techniques that are employed to combat SPAM can be employed to tackle SPIT.

Question 26: Have there been any instances of a VoIP service being compromised or used to deliver malware or a DoS attack?

Viatel has not encountered such a problem.

Question 27: Are there any other considerations that need to be taken into account when a provider does not have a UK entity?

Ofcom should be firm and clear that any provider offering service to customers in the UK and/or offering numbers from the UK Numbering Plan is subject to Ofcom's jurisdiction and to the General Conditions.

Question 28: Is it reasonable to ask VoIP service providers to participate in schemes designed for e-commerce?

Question 29: Do you have any other comments on the proposed approach to investigating the application of the GCs applicable to providers of PATS in the context of VoIP?

We refer to our answers above.

Question 30: Do you have any comments on Ofcom's views on the meaning of abovementioned terms and legal concepts?

No. We accept Ofcom's position that when Viatel's service is used away from primary office locations, the general conditions which apply to services provided at a "fixed location" will not apply to Viatel.

Question 31: Are there any other steps that a VoIP service provider could consider in respect of the IP network layer and service application layers to ensure network integrity?

In view of the range of elements involved, no VoIP service provider is able to control all aspects of a network from end-to-end, except in the case of an on-net call. A VoIP provider can therefore only reasonably be expected to deliver network integrity over the elements that it controls.

With regard to blocking (paragraphs 9.14-9.16), a key means of improving network integrity would be to ensure that the underlying network operator

does not actively degrade a service without ensuring consumers are made aware of this.

Question 32: Are there any other steps that a VoIP service provider could consider in respect of parts of the underlying network that they do not control?

In Viatel's view, when a provider is reliant on a different broadband provider to provide access to their VoIP services, this has essentially the same properties as a nomadic service. As Ofcom explains in paragraphs A6.52 to A6.59, the provider of a nomadic service has no visibility or control over the infrastructure over which the service is accessed. It goes on to state that the adjective "fixed" means fastened securely in position or predetermined or inflexibly held. We believe that some "voice over broadband" services will answer the same description.

We do not think that obtaining SLAs from the underlying network operator is reasonable, necessary or appropriate. The SLAs that were referred to in Ofcom's 2004 consultation were (in the case where the voice and the broadband are from the *same* provider) between the DSL provider and the infrastructure owner (for example BT), i.e. where there is already a contractual relationship. Where VoIP services are separate from broadband provision, the VoIP provider cannot know who the broadband provider is.

Question 33: What additional steps could a VoIP service provider take to support nomadic users with regard to maintaining network integrity?

Viatel does not believe that it is appropriate for a VoIP service provider (whether nomadic or otherwise) who does not provide the broadband service to be responsible for the integrity of the end to end network. The General Conditions should be reworded so that operators of all networks are responsible for network integrity.

Question 34: Do respondents consider whether other options to ensure continuity in the case of a power outage are appropriate?

Providers of both business and residential services should take appropriate and proportionate measures, bearing in mind any similar obligations that are placed on the use of other equipment, such as PBXs or DECT phones. In the business environment, we would expect that a review of power requirements would be commensurate with the overall quality (and possibly price) of the service provided.

Question 35: What other steps could be taken to provide reliable location to assist the emergency services in their work? Question 36: What other steps could be taken to provide reliable location to assist the emergency services in their work in the case of nomadic users?

Question 37: In addition to participating in the NICC working group on providing location in IP networks and the 112 expert group, what other steps should Ofcom take?

Viatel provides the emergency services database with the address of the registered site of our business customers as part of the customer sign-up process. When a call is made from an IP phone at another branch office, we rely on the emergency services call centre to recognize the VoIP “flag” and ask the caller for his or her location. This would also be the case if the call were made from a worker’s home or a WiFi hotspot, but in those cases the caller would be more likely to use a fixed line or mobile phone to make a 999 call.

For nomadic use, we do not believe that “periodic updates” of location information are appropriate unless technology develops so that it is done automatically as part of the customer log-on. This is not possible now. At present, users move about too frequently to make this feasible.

Viatel is able to access the emergency services database via our interconnect with BT. Given that many VoIP providers do not have a direct interconnect with BT, it might be useful to make access to that database easier for all PATS providers.

We would be happy to implement new technical solutions as they become available.