Comments on the

Commission Consultation Document on

The treatment of Voice over Internet Protocol (VoIP) under the EU Regulatory Framework

submitted by the

Austrian Regulatory Authority for Broadcasting and Telecommunications
(Rundfunk und Telekom Regulierungs-GmbH)
Mariahilferstraße 77-79, 1060 Vienna, Austria

Content

Introduction 3
Comments 3
Ad Chapter 2.2 (1) Electronic Communication Service (ECS) 3
Ad Chapter 2.2 (2) PATS and emergency services 5
Ad Chapter 3 Classes of VoIP offerings 6
Ad Chapter 4.1 (Authorisation) 7
Ad Chapter 5.6 Extra-territorial VoIP providers 7
Ad Chapter 6.3 associated facility 7
Ad Chapter 7.2 Geographic numbers 7

Introduction

The Austrian Regulatory Authority for Broadcasting and Telecommunications (RTR-GmbH) welcomes the initiative taken by the European Commission to start a discussion regarding the important issue of applying the EU regulatory framework for electronic communications to Voice over IP (VoIP) and the possibility to submit comments on the issues raised in the Commission Consultation Document on "The treatment of Voice over Internet Protocol (VoIP) under the EU Regulatory Framework".

RTR-GmbH held a public consultation in July/August 2004 on the issue of how the national Austrian telecommunication act and the according ordinance should be applied to new VoIP services and how to classify VoIP services accordingly. The RTR-consultation input document as well as the comments received from participants to the consultation can be accessed on the RTR website[1] (in German only). The answers from this national consultation have been taken into account and to some extent influenced our position and our resulting comments on the current consultation of the Commission that are provided in this document.

Comments

Ad Chapter 2.2 (1) Electronic Communication Service (ECS)

As stated in chapter 2.2 the EU Regulatory framework defines an Electronic Communication Service (ECS), to be a

- service normally provided for remuneration
- which consists wholly or mainly in the conveyance of signals on Electronic Communication Networks …

From our point of view this condition is the very key condition: We think that there is no doubt that **conveyance of (electronic) signals can technically only be realised by means of an electronic communication network** (ECN). Starting from this there are only two generic possibilities regarding ECS provision:

- ECS provider is at the same time also ECN operator or
- ECS provider is not ECN provider on his own but has a (wholesale) contract with a third party ECS/ECN operator

In the latter case (wholesale contract) the ECS provider buys the wholesale electronic communication service provided by the third party ECS/ECN operator and is reselling it to the user. In the regulatory framework a reseller of ECS/PATS is defined to be a provider of ECS/PATS itself.

In the **world of vertically integrated PSTN-Networks** where routing and transmission are technically combined with call and feature control all PATS providers (including indirect access operators) are therefore at the same time ECS providers (at least by means of reselling an ECS or ECN service).

1 http://www.rtr.at/web.nsf/englisch/Portfolio_Konsultationen_bisherige_bisherigeKonsultationen_KonsultationVoIP

The typical Internet service provision model is completely different. There is a fundamental split between the rather "dumb" network that essentially "only" provides the global transport of data packages based on IP-addresses and intelligent applications or services that reside in the nodes at the edge of the network (e.g. application servers, user IP-terminals/PCs) and rely on the network's transport functionality.

- The mentioned key Internet service is "Internet-Connectivity", which undoubtedly is a classic ECS and is the basic service provided by ISPs to their customers within the "Internet access" product.

- On top of this basic ECS "Internet-Connectivity" within the "Internet access" product of ISPs (paid for by the end user directly to the ISP in the general case) numerous "intelligent" Internet services and applications are provided by third party providers, e.g. based on according application servers. To use these servers the service provider (as the user of the service) has to pay for Internet access (ECS Internet-Connectivity). To classify such a (e.g. server based) service as ECS or not, it has to be investigated if the service that is sold to the consumer wholly or mainly consists in the reselling of this ECS "Internet-Connectivity" or not.

In typical Internet only VoIP applications (i.e. without access to the PSTN) the VoIP Provider in essence only provides the IP-address of the "called party" and has no function at all within the transport of the IP packets between the VoIP users. So for example it would not be reasonable if a VoIP subscriber complains to his VoIP provider in case of poor voice quality, as the transmission of IP packets (i.e. the ECS-part of the bundle of the two generally totally independent products used by the VoIP subscriber) is **not** part of the VoIP service, but is the technically and contractually independent service of the ISP of the respective VoIP subscriber.

Consequently, if the transmission of IP packets (carrying the voice data) between the "calling" and the "called" user is **not** part of the VoIP service (no according cost elements within the VoIP service price, no reselling of Internet-Connectivity) it does not seem legally possible to say, that this VoIP service would mainly **consist** in the conveyance of electronic signals (IP packets) which would be the necessary prerequisite for a classification as ECS (see figure 1). Maybe the situation would be clearer if such businesses had been named VoIP "enablers" instead of VoIP "providers". They in essence only support VoIP clients (e.g. on user PCs) to directly communicate end to end but have no role in the data transmission aspects (signal conveyance) of the voice data.

Note: A submission to the national consultation on VoIP held in Austria recently gave an example of a calculation for the price of a VoIP call. Take an ADSL based Internet access with a data transfer limit of 500 MByte and a monthly retail price of EUR 29.90 provided by an ISP. With a VoIP call data rate of e.g. 80 kBit/s this gives a maximum call time of about 14 hours. As this is the price for outgoing as well as incoming calls, you get 7 hours of outgoing VoIP calls for EUR 29.90, which equals a fee of EUR-Cent 7 per minute. **Note that this fee is "collected" by the ISP, not by the VoIP provider.**

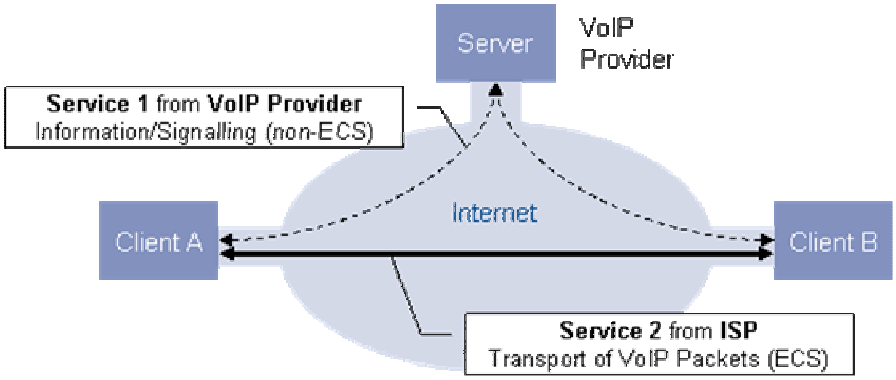

Figure 1: Internet service provision model (sever based szenario)

It should be noted that the "associated facility" (chapter 6.3. in the EU VoIP consultation document) from our point of view always is an **additional** facility i.e. an add-on to a corresponding ECN or ECS of a specific provider (and therefore has to be included in regulatory rights and obligations of this provider regarding ECN and ECS). In the above case of Internet only VoIP services there is no corresponding ECN or ECS of the VoIP provider and the "associated facility" aspect is not applicable in this context.

Conclusion:
An Internet only VoIP Provider cannot be classified as ECS provider. Because of this in the current regulatory framework such service also cannot be PATS because PATS is a specific subcategory of ECS.

Ad Chapter 2.2 (2) PATS and emergency services

As stated in chapter 2.2 (2) the EU Regulatory framework defines a Publicly Available Telephone Service (PATS), to be a

- service available to the public
- for originating & receiving national and international calls
- **and access to emergency services**
- through a number or numbers in a national or international telephone numbering plan

In this explanation for PATS and afterwards in the consultation document the provision of access to emergency services is treated as a valid discrimination criterion between regulatory different services (PATS and other "ECS only" services). This topic has been touched in the Analysis Report on VoIP mandated by the European Commission and is often discussed in international fora with the conclusion that the framework is legally not absolutely clear at this point and leaves room for interpretation.
If the definition of PATS indisputably would require access to emergency services as a mandatory prerequisite for classification as PATS, it would not be consistent to additionally require access to emergency services in Art. 26 of the Universal Service Directive from all PATS providers. If a provider would not provide access to emergency services and therefore would not classify as PATS at all, the requirement becomes useless because it addresses only PATS providers.

From the more practical side we would recommend to treat access to emergency services as a feature element of PATS services. The provision of this feature should not be decisive on PATS or ECS only classification.
In this respect it may be of interest that the legal requirements towards the provision of access to emergency services in Austria may possibly not be as challenging for VoIP providers as in other member states. Legal obligations (e.g. routing of emergency calls and provision of caller location) take technical restraints into account and from the legal point of view a best effort service could be sufficient as a starting point – of course this should be improved as soon as possible in the interest of the users.

It further has to be mentioned that – at least in Austria – indirect access operators do not provide access to emergency services. This is due to national regulation that all these calls immediately are terminated at the incumbent's network and are not passed on to alternative operators as are other calls. If provision of access to emergency services would be criterion for PATS – the absence of which would change PATS to ECS – all indirect access operators could not be qualified as PATS – and this is obviously not a way to go. Maybe there is a similar situation in other member states regarding indirect access operators and this could be an approach for at least a timely exemption or a weaken of emergency access obligations in case of VoIP providers being classified as PATS providers.

Ad Chapter 3 Classes of VoIP offerings

Based on the current legal framework we see two generic classes of IP-based services (besides corporate and private usages) that should be differentiated:

- **Class A:** VoIP services that provide access to the PSTN

- **Class B:** VoIP services that only enable voice communication between Internet subscribers without access to the PSTN.
  Note: In this scenario it is assumed that an Internet subscriber is an Internet subscriber that has "free" access to the Internet and is not restricted with respect to outgoing or incoming VoIP communication may it be of technical or of contractual nature by the ISP providing the Internet access.

Ad Class A:
VoIP Services that provide access to the PSTN include reselling of PATS (wholesale termination products). Such Class A VoIP providers also operate a voice gateway between Internet and PSTN on their own and therefore would classify as an ECN or they have an according contract with the operator of such a gateway. Because of both aspects (reselling and gateway) there is an essential ECS part within the service and because of the obvious additional use of E.164 numbers (at least necessary for access to and from the PSTN) such a service should be classified as PATS. In the general case such services may also comprise E.164 based VoIP to VoIP communication not touching the PSTN.

Ad Class B:
As already explained (text regarding chapter 2.2. of EU document above) from our point of view Class B services do not fall within the current regulatory framework for ECN and ECS. Examples of Class B services offered today are e.g. Free World Dialup or classical Skype (without additional Skype Out option, i.e. without PSTN access).

Ad Chapter 4.1 (Authorisation)

In chapter 4.1 last paragraph it is said that the model in the EU framework is that a service provider has the commercial freedom to offer services that qualify him as ECS and hence to operate with the rights and obligations that apply to a provider of electronic communications services; or to offer services that qualify him as PATS, and hence to operate with the rights and obligations that apply to a provider of publicly available telephone services.

We share the view expressed that a (VoIP) service provider has the commercial freedom to provide services he chooses. Nevertheless the legally relevant classification always has to rely on transparent and objective criteria. If a service provider provides PATS he must not be able to escape the according duties by merely declaring his service to be only an ECS. We do not support a view that suggests that the classification of a specific (VoIP) service as PATS or ECS is at the choice of the service provider.

Ad Chapter 5.6 Extra-territorial VoIP providers

This topic is a key issue in every day regulatory life and therefore we would recommend putting more emphasis on it from the Commission side. On one hand there have to be global arrangements because EU regulation only is obviously insufficient in this case. On the other hand practical approaches have to be developed how regulatory obligations can be enforced to extra-territorial service providers in and especially outside the EU. The assumed presence in the EU of most commercial international VoIP providers of every size might show to be a rather weak basis for such an approach.

Ad Chapter 6.3 associated facility

See remark made in the context of the classification (end of the text regarding chapter 2.2. (1) of EU document on page 5).

Ad Chapter 7.2 Geographic numbers

The commission urges to assign geographic numbers to VoIP providers that are only classified as ECS (i.e. not PATS). At the same time the commission clarifies that porting of numbers can only be required between PATS providers.

We have heavy concerns to this concept that would lead to two subclasses of geographic numbers, ones that are used in context of PATS and can be ported and others that are used for ECS and cannot be ported.
This differentiation to a high degree would not be transparent for the customers. Today classes of E.164 numbers represent classes of services in the sight of the customers (e.g. mobile numbers for mobile PATS, geographic numbers for PATS on fixed location etc.)!

Besides the above we currently have two main concerns regarding the use of geographic numbers for (nomadic) VoIP services:

1. As geographic numbers are assigned in blocks there is a real danger of block shortages if we would have to assign such blocks globally to each requesting VoIP provider without any further prerequisite (e.g. in Vienna only approx. 400 blocks of geographic numbers are available). Potential counter measures could be a downsizing of number blocks or the obligation for PATS providers to “port” also such numbers to customers of other PATS providers that have not been used before the

"porting" but both approaches would need intense discussion with the current network providers on potential unwanted consequences.

2. Today emergency calls from geographic numbers carry important implicit information on the location of the caller: using static directories the according street address associated with the geographic number can easily be investigated by the emergency service response centre or alternatively is available from the according telephone provider on request. This is especially important in case of emergency calls from heavily wounded or very upset people or children that all together may have heavy difficulties or are even unable to provide a reliable street address for the emergency service response. This benefit would vanish if geographic numbers would increasingly be used for nomadic VoIP services in case of emergency calls. Therefore any change in this respect should be carefully discussed with the emergency service operators.

It should be noted that in the Austrian numbering ordinance there is a basically technology neutral regulation on geographic numbers. The usage of such numbers is restricted to fixed locations and requires according technical provisions. On this basis also VoIP realisations are possible and geographic numbers are already assigned to complying VoIP operators.

The required technical provisions for fixed usage typically demand at least some kind of agreements with the according IP access provider of the customers. This also limits the number of VoIP-applicants for geographic numbers and therefore the danger of number shortage as formulated above is significantly lower as expected in case of unrestrained assignment of geographic numbers.