

COMMUNICATION FROM THE COMMISSION

Consultative communication on a review of the 1998 notice by the Commission on the status of voice on the Internet under Community law, and in particular, under Directive 90/388/EEC**Supplement to the Communication by the Commission to the European Parliament and the Council on the status and implementation of Directive 90/388/EEC on competition in the markets for telecommunications services**

(2000/C 177/03)

(Text with EEA relevance)

On 10 January 1998, the Commission published a notice⁽¹⁾ setting out the status of voice on the Internet under Directive 90/388/EEC⁽²⁾ concerning competition on the markets for telecommunications services, as amended. This Directive defines voice telephony. According to Article 1 of the Directive, ‘“voice telephony” means the commercial provision for the public of the direct transport and switching of speech in real-time between public switched network termination points, enabling any user to use equipment connected to such a network termination point in order to communicate with another termination point.’

The 1998 notice was a supplement to Communication 95/C 275/02⁽³⁾ of 20 October 1995 of the Commission to the European Parliament and the Council on the status and implementation of Directive 90/388/EEC. This communication sets out the Commission's approach on the implementation of the definition in Article 1 of Directive 90/388/EEC. The publication of the notice was necessary, given that, since 1990, due to the development of specific software, it had become possible to code, compress and transmit voice communications in such a way that it has become viable to send them via the Internet to other Internet subscribers using the same or interoperable software and via gateways to standard telephones, often described as voice over Internet protocol (VoIP). This definition is essential, as it enables the determination of these undertakings which should be subject to the regime applied to voice telephony operators, including the securing of a licence⁽⁴⁾ and providing or contributing to universal service⁽⁵⁾.

The 1998 notice was adopted after a period of public consultation during which the Commission had heard comments from all interested parties. It acknowledged the need for periodic review and announced that the Commission would review its scope periodically and at the latest before 1 January 2000.

This communication aims at opening a public consultation on the review of the 1998 notice. It summarises the assessment

made in the 1998 notice and proposes to maintain its main conclusions. It then lists a number of questions on which comments are sought from interested parties.

The consultation is undertaken under existing legislation. Its purpose is not to lead to alterations in the current regulatory framework, nor to assess the timeliness of amending Directive 90/388/EEC.

1. MAIN ELEMENTS OF THE 1998 NOTICE

The current Community regulatory framework for the telecommunications industry (which includes the Licensing Directive 97/13/EC as well as Directive 90/388/EEC) allows Member States to impose proportionate obligations which may in the case of operators offering either a public telecommunications network or a publicly available voice telephony service be more onerous than for operators offering other services. This framework is currently being the subject of a review⁽⁶⁾, but any future amendments are not likely to enter into force before the end of the year 2002.

The issue examined in the 1998 notice — i.e. the regulatory treatment of voice communications on Internet under the current regulatory framework — will therefore remain significant at least until that date, especially in Greece, which may maintain special and exclusive rights for the provision of voice telephony services until 31 December 2000.

1.1. Analysis per criterion

In its 1998 notice, the Commission stated firstly that it considered that the definition of voice telephony in Directive 90/388/EEC taken together with existing precedents provided good guidance for assessing the regulatory position of voice communications services on the Internet in the pre-liberalisation situation.

(1) OJ C 6, 10.1.1998, p. 4.

(2) OJ L 192, 24.7.1990, p. 10.

(3) OJ C 275 p. 2.

(4) Directive 90/388/EEC and Directive 97/13/EC (Article 7(2)).

(5) Directive 97/33/EC (Article 5(1)).

(6) Commission communication ‘Towards a new framework for Electronic Communications infrastructure and associated services — The 1999 Communication Review’ (COM(1999) 539 of 10.11.1999).

However, given the specificities of the Internet, there was a need to elaborate on the principles laid down in the regulatory framework, especially those contained in Article 1 of Directive 90/388/EEC. The 1998 notice was designed to address that need, by interpreting the criteria of the 'voice telephony' definition. When all the criteria of the 'voice telephony' definition were satisfied, those Internet service providers offering a dial out service from and to any telephone number — and only those — would then be considered providers of voice telephony services under Community law.

The criteria to evaluate whether a given service is voice telephony were based on elements relating to the nature and the quality of the service offering, and are not determined by the technology employed.

Those criteria were interpreted as follows.

1.1.1. *Internet telephony must be the subject of a commercial offer*

'Commercial' should be understood in the common sense of the word, i.e. that the transport of voice is provided as a separate commercial activity, i.e. provided against payment and with the intention of making a profit. Consequently, it does not cover the simple technical non-commercial provision of a telephone-like connection or channel permitting voice communication between two users.

In its 1998 notice, the Commission took note that in the case of the Internet, in most cases the commercial provision of the transport of voice is not the principal aim of access providers and Internet telephony is only an additional feature offered by Internet access which is chosen by the customer for a number of reasons, such as browsing, e-mail, and downloading of files and data, etc.

Only where phone-to-phone Internet telephony is marketed in the European Union as an alternative form of voice telephony service, would the organisation concerned be considered to be making a commercial offer.

Similarly, if the provision of voice over Internet protocol became a decisive element in service providers' commercial strategies, they could be considered as providing commercially the transport of voice.

1.1.2. *Internet telephony must be provided for the public*

Internet voice telephony is provided 'for the public' when the service is potentially available to all members of the public on

the same basis. This criterion implies that Internet telephony facilities catering to a closed and limited group of users cannot be considered as genuine voice telephony services.

1.1.3. *Internet telephony must be provided to and from public switched network termination points*

'Between public switched network termination points' means that the voice communication service not only has to be offered commercially and to the public, but also it has to connect two network termination points on the PSTN ⁽¹⁾ at the same time. These termination points are those defined by subscriber numbers from the national telephone numbering plan ⁽²⁾. Consequently, if access to the Internet is obtained via leased circuits, the service could never be considered as voice telephony, even if the call terminates on the public switched network.

1.1.4. *The provision of Internet telephony must involve direct transport and switching of speech in real time*

On the basis that the technique used for the first voice communications between Internet users and the early state of development of Internet technology (mainly bandwidth and compression techniques) Internet telephony could not, at the time of the 1998 notice be considered to take place in real-time. Given the fact that at least part of the transmission is over the Internet (which currently has only one class of service), it is subject to unpredictable congestion risk, making it difficult or impossible to guarantee the same level of reliability and speech quality as produced by the PSTNs.

The notice acknowledged nevertheless that in cases where organisations offering phone-to-phone Internet voice guarantee quality of speech by bandwidth reservation and claim themselves that the quality of the service is the same as circuit-switched PSTN voice, this element of the voice telephony definition will obviously already be met.

1.2. Overall conclusion derived from the above analysis

Starting from the definition of Directive 90/388/EC, the Commission, which distinguished three categories of services (PC to PC, PC to phone and phone to phone), reached the conclusion that Internet telephony fell outside the definition of voice telephony, mostly on the ground that it did not meet the reliability and speech quality as normally required for voice telephony.

⁽¹⁾ The public switched network is not formally defined in the Directive. It must be given its common meaning, i.e. the public switched telephone network (PSTN) which is the collection of switching and transmission facilities used by the telecommunications organisation to provide the normal telephony service.

⁽²⁾ The common understanding of 'termination points' is set out in the Voice telephony Directive 98/10/EC and its cross reference to Annex I on the Interconnection Directive 97/33/EC.

The Commission's 1998 Notice therefore concluded that under the licensing rules which then existed Member States must allow Internet access providers to offer voice over the Internet under data transmission general authorisations.

As stated in the 1998 notice, any review of the conclusion that voice over Internet protocol does not fall within the voice telephony definition, can have significant regulatory consequences for the relevant undertakings.

Given that the regulatory position of voice communications on the Internet depends on an analysis of the actual service provided as regards the various elements of the definition of voice telephony in Article 1 of Directive 90/388/EEC, the Commission acknowledges that possible technical and market developments have to be taken into account in the framework of its application. The comments received by the Commission on the occasion of the 1998 notice already showed that at least to a limited extent key elements of the conditions for such developments would possibly be met in the future.

This is the reason why the Commission is undertaking the revision of this notice, in order to appreciate whether it has to be amended or complemented.

2. MAIN EVOLUTIONS SINCE 1998 AND EXPECTED TRENDS

2.1. Market trends

On the demand side, the main attractiveness of VoIP stems from the facility it provides to make international calls at low costs. This comparative advantage is, however, gradually being somewhat eroded, due to international call prices coming down since liberalisation.

Worldwide, the Internet telephony market (2,3 billion calls in 1999) remains limited in comparison with traditional voice telephony, which channelled 7 trillion minutes of calls in 1999. Most of the Internet telephony calls are however generated in the US, where Internet penetration is higher than the European average.

On the supply side, in certain Member States, telephony operators display increasing interest for Internet telephony as an alternative to their conventional voice telephony service. This trend results from an evaluation by the relevant operator in terms of advantages and costs of the different legal/regulatory conditions for providing voice services.

Under most of the Member States' regulatory frameworks, an operator providing voice telephony whether by IP or PSTN is subject to a certain regime which entails advantages, e.g. in terms of interconnection rights, but may be subject to certain obligations not applied to other providers of telecommunications services and which are tantamount to additional costs (examples: requirement for an individual licence under the Licensing Directive ⁽¹⁾; requirement to contribute to the costs of universal service under the Interconnection Directive ⁽²⁾). A VoIP operator may prefer to obtain the status of a voice telephony operator and abide by the relevant obligations. In this case, they have to make the necessary investments to fulfil the regulatory requirements, if any. This is for example the case in Germany, where several VoIP providers have applied for a 'Klasse 4 Licence' (voice telephony).

Conversely, operators may prefer to offer their service as a data service, without the obligations that a voice telephony licence operator may have to comply with and the privileges that it may enjoy.

Given that the voice telephony definition in Directive 90/388 refers to the 'commercial provision' of the service as a criterion, the way service providers market their service to the public will be to a large extent decisive to determine the applicable regulatory regime. For example, if the commercial package focuses on the voice element, thus acknowledging it as the central element in the offering, the service provided would fall into the scope of the voice telephony regulatory regime.

Moreover, new entrants and incumbents in the sector increasingly offer bundled services that include voice and data over high speed IP networks, instead of competing specifically with the traditional voice telephony service. In the past, in its 1998 Notice, the Commission in this regard clarified that the offer of video telephony, although containing a voice component, could not be considered as a commercial offer of voice telephony. Today offers of services bundling data and voice are of great interest to companies using VoIP as the standard technology within their intranet. Under such circumstances, Internet telephony is no longer a specific commercial offering but becomes an integrated element of a commercial package, without the Internet telephony offer (and the lower consequent tariffs) being a decisive driver for subscription to such a service.

2.2 Technological developments

In addition to these trends, the Commission considers it likely that in the coming few years, the following developments will occur:

⁽¹⁾ Directive 97/13/EC (Article 7(2)).

⁽²⁾ Directive 97/33/EC (Article 5(1)).

- (i) technical and operational improvements in quality such that for many users Internet telephony will be at a generally acceptable level of reliability and quality; in particular, one should take into account the introduction of differential quality of service possibilities stemming from technological developments (packet and flow labelling, routing improvements, migration from version 4 to version 6 of the Internet protocol), which among other things will pave the way to significant improvement in the quality of Internet telephony and other real time services;
- (ii) the public telecommunications operators will increasingly use IP in their core networks to carry data and voice, in order to achieve greater efficiency gains; this will be transparent to traditional PSTN users;
- (iii) in addition, certain public telecommunications operators notified as having significant market power have started providing voice over Internet protocol making use of their data backbone networks. This leads to questions regarding how to deal with the network elements used in the case the service would be considered as voice telephony and in particular to what extent the relevant obligations under Directive 98/10/EC such as cost-orientation or the provision of special network access would have to be applied to the relevant network elements (e.g. Data networks used for the service);
- (iv) for large data users within a closed user environment, VoIP may become the preferred technology for supporting internal telephone service, as the cost of equipment for VoIP falls, and users are able to realise substantial efficiency gains by combining voice and data over the same network;
- (v) individual consumers will continue to use their telephone — albeit increasingly their mobile phone — rather than their PC for making telephone calls, and circuit switched technology will continue to be used in the local access network but, as noted above in parallel with IP.

3. ENVISAGED APPROACH AND ISSUES FOR THE PUBLIC CONSULTATION

On the one hand, the impact of Internet voice has not yet been felt in a major way. Internet telephony can be viewed as a positive and innovative activity, which will indirectly put pressure on existing price structures in the same way as call-back or calling-card services. Until now, though, the

categories of Internet voice services, when offered as a discrete stand alone service, have remained a limited activity, because of:

- the difficulty of guaranteeing a quality level as normally expected from voice telephony, due among other factors to the loss of quality resulting from the conversion from data into voice;
- the user inconvenience due to technical complexity and to overhead of evaluating different market offers;
- the erosion of margins subsequent to a decline in retail prices for telephone services over the PSTN, particularly for long distance and international calls.

On the other hand, Internet protocols are being used within the backbone networks of public switched telephone networks and will increasingly be used in private networks to carry voice and data services. The use of IP technology in this way does not affect the regulatory position of the companies concerned, nor does it require any change in the licences or authorisations under which they operate.

For the time being, and without anticipating at this stage possible medium term changes in the regulatory framework following the current review, the Commission envisages that it will confirm that the definition of voice telephony in Directive 990/388/EEC continues to be the adequate basis for assessing the regulatory position of voice communications services on the Internet in the post-liberalisation situation.

Taking into account the current situation and trends mentioned above, it intends to confirm also that Internet telephony still continues to fall outside the definition of voice telephony, in particular since:

- it does, in most cases, not meet the criteria of reliability and sound quality as normally required for voice telephony, and/or
- it is not offered as a single service or as the main element of a range of bundled services marketed as voice telephony, for example because it is technically bundled with data services or is designed to meet demands additional to that for voice telephony.

This means, generally speaking, that Member States should continue to allow Internet access providers to offer voice over Internet protocol under data transmission general authorisations⁽¹⁾, and that specific licensing conditions are not justified.

The relevant authorities shall of course remain at any time entitled to request from all market players the necessary information to ascertain whether the conditions set out in the general authorisation scheme are duly complied with. In this framework, national regulatory authorities can thus ensure that the voice telephony regulatory framework is not circumvented by Internet telephony operators.

The Commission would however seek the opinions of all interested parties on this envisaged position, taking into account the current and expected Internet telephony offers and the various elements of the definition of voice telephony in Article 1 of Directive 90/388/EEC, mentioned above. Quantified analyses are of course very welcome.

In particular, the Commission would seek comments on the following elements.

Services available for the end-user

(i) In its 1998 notice, the Commission distinguished three categories of Internet telephony services:

- PC to PC,
- PC to phone,
- Phone to phone.

Taking into account market and technological developments, should other distinctions be made or other categories considered?

- (ii) Do these different kinds of services develop at the same pace? Is there a market for such services? In particular, how widespread are phone to phone Internet voice services?
- (iii) Should under the current regulatory framework Internet telephony operators be submitted to identical provisions irrespective of the category of service provided, or conversely, should the various categories mentioned entail different legal treatment due to significant differences in the quality level of the service provided?

Bundled offerings including VoIP services

(iv) Operators are increasingly offering bundled services that combine voice and data conveyed over high speed IP networks.

In what circumstances could the 'voice' component of such an offer (and the subsequently lower tariffs) be considered as a dominant feature of the service and as a decisive driver for subscribing to such a service? What criteria could be used to assess the weight of the various components of the offering in the customer behaviour/decision? Are customers subscribing to such a service attracted by the content (combination of voice and data), or rather by low tariffs?

Identification of market players

(v) Internet voice will often be implemented by the end-user on top of a data-transport service. The end user will decide himself, using his terminal equipment and, in some cases, specific software, from which he acquires the voice service elements.

Who, among the various Internet players, should be considered as providing the Internet voice service?

The Commission invites interested parties to submit the possible observations they may have on the draft position published hereunder. The Commission intends to publish the comments received by third parties on the Europa server unless that third party explicitly objects at the time of submitting comments to their publication.

Observations must reach the Commission not later than two months following the date of this publication. Observations may be sent to the Commission by fax (No (32-2) 295 06 24) or by mail to the following address:

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⁽¹⁾ See Directive 97/13/EC. See also Directive 90/388/EEC, as amended by Directive 96/19/EC and Directive 97/33/EC of the European Parliament and of the Council of 30 June 1997 on Interconnection in telecommunications with regard to ensuring universal service and interoperability through the application of the principles of Open Network Provision (ONP) (OJ L 199, 26.7.1997).